

R M W



PUBLIC HEARING
NOVEMBER 27, 1984
8:00 P.M.
8787 GEORGIA AVENUE
SILVER SPRING, MARYLAND

ABSTRACT

TITLE: 1984 Report on Comprehensive Planning Policies including guidelines for the administration of the Adequate Public Facilities Ordinance.

AUTHOR: Montgomery County Planning Board of the Maryland-National Capital Park and Planning Commission.

SUBJECT: Adopted Land Use and Staging Policies, Forecasts for Households, Population and Employment, development activity monitoring, and new guidelines for the administration of the Adequate Public Facilities Ordinance.

DATE: November 1984

PLANNING AGENCY: The Maryland-National Capital Park and Planning Commission
8787 Georgia Avenue
Silver Spring, Maryland 20907

SERIES NUMBER: 0667852509

NUMBER OF PAGES: 154

ABSTRACT: This document is intended to serve the function of amending the Montgomery County Planning Board's current administrative guidelines for the Adequate Public Facilities Ordinance.

It contains recommendations to the Capital Improvements Program in the area of transportation.

As a composite document, it combines a set of interrelated policies and data in one convenient reference volume. These provide an overview of the composite land use and staging policies of the County, especially as they apply to land use regulation.

The report includes for County population and housing, updated inventory data on development progress, and extracts of all previously adopted staging policies as contained in various master plans, sector plans and functional plans.

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

COMMISSIONERS

Montgomery County Planning Board

Norman L. Christeller, Chairman

Mable Granke, Vice Chair
Judith B. Heimann
Betty Ann Krahne
Richmond M. Keeney

Prince George's County Planning Board

Charles A. Dukes, Jr., Chairman

Edwin H. Brown, Vice Chairman
Edgar B. Keller, Jr.
Margaret Yewell
Roy I. Dabney

DEPARTMENT HEADS

Thomas H. Countee, Jr.
Executive Director

A. Edward Navarre
Secretary-Treasurer

Arthur S. Drea
General Counsel

Richard E. Tustian
Montgomery County Planning Director

John F. Downs, Jr.
Prince George's County Planning Director

Donald K. Cochran
Montgomery County Parks Director

Hugh B. Robey
Prince George's County Parks and Recreation Director

John R. Hoover
Community Relations Officer, Montgomery County

Robert D. Reed
Community Relations Officer, Prince George's County

COMMISSION REGIONAL OFFICES

8787 Georgia Avenue, Silver Spring, Maryland 20907
14741 Governor Oden Bowie Drive, Upper Marlboro, Maryland 20772

TABLE OF CONTENTS

Page

EXECUTIVE SUMMARY	i
-----------------------------	---

I. STAGING

Guidelines for Administration of the Adequate Public Facilities Ordinance	2
Thresholds by Policy Areas	12
Local Area Transportation Review	44

II. STATUS

Residential Development	58
Sales Prices	62
Non-Residential Development	72
Employment.	76

III. FORECASTS

Forecast	80
Dwelling Unit Forecast	81
Employment Forecast	97

IV. RENTAL HOUSING MARKET

Introduction	100
Renter Incomes	102
Effective Demand	108

V. DEVELOPMENT PLANS AND POLICIES

Adopted Staging and Sewer and Water Policy in Master, Sector and Functional Plans	114
--	-----

LIST OF MAPS

		Page
1	Policy Areas	10
2	Planning Areas	83

LIST OF CHARTS

1	Olney Policy Area	17
2	Germantown West Policy Area	19
3	Germantown East Policy Area	21
4	Cloverly Policy Area	23
5	Potomac Policy Area	25
6	Fairland/White Oak Policy Area	27
7	Gaithersburg Policy Area	29
8	North Bethesda Policy Area	31
9	Kensington/Wheaton Policy Area	33
10	Bethesda Policy Area	35
11	Silver Spring/Takoma Park Policy Area	37
12	Silver Spring Cumulative Dwelling Unit Growth Compared to the Forecast	88
13	Bethesda Cumulative Dwelling Unit Growth Compared to the Forecast	89
14	North Bethesda Cumulative Dwelling Unit Growth Compared to the Forecast	90
15	Kensington/Wheaton Cumulative Dwelling Unit Growth Compared to the Forecast	91
16	I-270 Corridor Cumulative Dwelling Unit Growth Compared to the Forecast	92
17	Fairland/White Oak Cumulative Dwelling Unit Growth Compared to the Forecast	93
18	Potomac Cumulative Dwelling Unit Growth Compared to the Forecast	94
19	Olney Cumulative Dwelling Unit Growth Compared to the Forecast	95
20	Damascus/Poolesville Cumulative Dwelling Unit Growth Compared to the Forecast	96

LIST OF TABLES

1	Staging Thresholds	12
2	Current Net Remaining Capacity Under 1984 Thresholds	13
3	Effect of Pipeline Discount Policy	14
4	Road Projects Added by the Adopted 1985-90 CIP and the MdDOT/SHA 1984-89 Consolidated Transportation Program	15
5	Listing of Highway Projects	38

LIST OF TABLES (Cont'd.)

6	Standard Approval for Transportation Adequacy	43
7	Building Permits by Jurisdiction in the Washington Metropolitan Area 1972-1983	59
8	Median Prices of Housing 1968-1983	61
9	Median Single-Family Housing Prices - 1983	64
10	Montgomery County Development Monitoring	65
11	Approved Preliminary Plans by Structure Type 1972-1983.	66
12	Record Plats by Structure Type 1972-1983	67
13	Building Permits by Structure Type 1972-1983	68
14	Housing Completions by Structure Type 1972-1983.	69
15	Housing Unit Construcion Septic and Public Sewer Service System 1960-1983	70
16	Population and Household Estimates 1960-1983	71
17	Montgomery County Non-Residential Construction.	75
18	Montgomery County Development Forecast.	82
19	Population by Age Group and Areas 1980-1990	84
20	High Scenario Population and Household Forecast by Planning Area	85
21	Intermediate Scenario Population and Household Forecast by Planning Area	86
22	Low Scenario Population and Household Froecast by Planning Area	87
23	At-Place Employment Forecast by Planning Area	97

LIST OF MASTER PLAN EXTRACTS

Agricultural Preservation	116
Bethesda CBD Sector Plan	118
Boyd's Master Plan	122
Clarksburg Master Plan	124
Damascus Master Plan	125
Eastern Montgomery County Master Plan	132
Gaithersburg and Vicinity Master Plan	136
Germantown Master Plan	137
North Bethesda Sector Plan/Grosvenor	142
North Bethesda Sector Plan/Nicholson Lane	143
Olney Master Plan	144
Potomac Master Plan	147
Rock Creek Master Plan	149
Sandy Spring/Ashton Special Study Area.	150
Shady Grove Sector Plan	151
Silver Spring Sector Plan	152
Silver Spring East Master Plan	153
Takoma Park Sector Plan	154

EXECUTIVE SUMMARY

Introduction

In 1981, the Montgomery County Planning Board adopted its first Annual Comprehensive Planning Policies (CPP) Report. That document dealt with the general subject of comprehensive staging in the County, and incorporated a new set of administrative guidelines for the Planning Board to follow in administering the County's Adequate Public Facilities (APF) Ordinance.

This fourth annual report revises some of the guidelines adopted in last year's report. Specifically, it raises the thresholds of permitted development in areas of the County to correspond with the increases in programmed transportation capacity adopted by the County Council in its Capital Improvements Program of May 1984.

22
3/5/85
[In addition, the APF guidelines have been amended to modify the treatment of subdivisions which require CIP projects. Such projects will be conditionally approved to permit the delay of their recordation if the CIP project has been delayed. Preliminary plans in the Shady Grove West area of the proposed Gaithersburg Vicinity Master Plan will be governed by the adopted master plan. This will mean, in part, that needed CIP projects may not be recorded until necessary road construction contracts are executed.

The definition of record plats has been clarified to mean the approval of the Planning Board to record.

The definition of program facility has been changed from 50 percent of funds for construction in the program to 80 percent of funds for construction. The only project that is effected by this change is the Great Seneca Highway. The 80 percent definition will result in counting just the southern portion of that roadway.

Where a subdivision is contributing to a privately funded project, all approved preliminary plans already contributing to that project have been added to background traffic. This procedure is more clearly spelled out in this document.

3/5/85
[The subject of having local area review along the eastern border of Potomac has been raised.

These amendments will be monitored to ensure that they accomplish the goals of APF. If necessary, further refinements can be made.

This year's document is intended to serve functions similar to those of last year's report. One is to update the changes in development capacity that are engendered by changes in the Capital Improvements Program, adopted the preceding May, or by other factors, such as changing transit ridership, etc. Another function is to update the County growth forecasts, for which the Board is responsible, on a more regular basis than has been the case in the past. Related to this is a periodic updated report on development projects in the pipeline of permit approval.

The report provides an up-to-date, single reference work that summarizes the current status of all the various adopted or amended master plans, sector plans, functional plans, etc., especially with respect to their cumulative staging implications. By combining all these elements in one document, the public can get a better feel for the relationship

between the various elements of past, present, and future that together make up the current composite fabric of comprehensive planning policy for the County.

The main elements of this report are as follows:

Chapter One - Staging

This chapter outlines the method used to calculate the adequacy of transportation facilities for Planning Board administration of the APF Ordinance.

The method involves the identification of "policy areas" within the County, which are organically related to both transportation and drainage-sewer areas. Each policy area is assigned a "threshold" level of development, expressed in both residential and employment terms, which is keyed to the ability of the existing and programmed transportation system to carry it without excessive stress. Subdivisions which add development above this threshold level will be judged to exceed the "adequacy" of the public facilities, and may be refused approval. Provision has been made for both (1) exceeding the threshold under special and unique conditions relating to the public's general welfare, and (2) stopping development short of the threshold, if it can be demonstrated that any further development will cause excessive local traffic congestion.

A discussion accompanies each policy area which notes certain residual problems and possible public improvements that could be undertaken to improve the situation. The last item is intended to stimulate further thought and discussion and is not intended to be completely comprehensive or definitive.

Chapter Two - Status

This chapter describes the status of the development pipeline of permit approvals. It is presented for information only, and no further actions are required.

Chapter Three - Forecasts

This chapter contains revised forecasts for population, housing, and employment by planning areas within the County. There are no changes from last years adopted forecast. The short term forecast is reviewed against dwelling unit growth for County subareas.

Chapter Four - Rental Housing Production

By mid-summer 1984, 3,660 units of local government financed new rental housing had entered the County's pre-construction, development, and marketing pipelines. Some 730 units of these will benefit from shallow to mid-level subsidy. Effective absorption of all 3,660 units anticipates a total 24-30 month production and marketing period. A market analysis for the foregoing development is provided in this chapter. No Planning Board action is required.

Chapter Five - Adopted Policies

This chapter contains an extract of all the major staging guidelines of the various adopted master, sector or functional plans. This chapter is for information only and no actions are required.

1984
COMPREHENSIVE

STAGING

PLANNING POLICIES
REPORT

In order to highlight proposed changes from the adopted 1983 Guidelines, additions have been underlined and ~~deletions~~ have been crossed through in the "Guidelines" and "Local Area Transportation Review" sections of this chapter.

GUIDELINES FOR ADMINISTRATION OF THE ADEQUATE PUBLIC FACILITIES ORDINANCE

Introduction

The Montgomery County Subdivision Ordinance authorizes the Planning Board to review all preliminary plans of subdivision for adequacy of programmed public facilities and to reject any that do not conform to this provision of the ordinance.¹ The following guidelines describe the methods and criteria that the Planning Board and its staff will use in administering this activity. These guidelines supersede all previous ones issued by the Board.

The method of administration outlined herein divides the County into policy areas. The Planning Board has determined the maximum amount of development for each policy area which can be accommodated by the existing and programmed public facilities at a particular level of service. These are stated as thresholds. Thresholds are established for dwelling units and employees. As long as a preliminary plan and previously approved development does not exceed the threshold, there is a presumption that public facilities are adequate. However, in order to assure adequate facilities on a small area basis, an additional analysis called Local Area Review may be required. The requirement for this review is triggered by a development which will exceed 50 peak hour trips and which is either near a congested intersection or in a policy area where the total approved development is approaching the threshold. The purpose of Local Area Review is to determine whether the local transportation network is capable of adequately serving the proposed development. These guidelines are not intended to be a means for government to avoid its responsibility for providing Adequate Public Facilities however, alternatives are available for developers who wish to proceed in advance of the public program.

In developing the guidelines outlined herein, the Planning Board has made a preliminary determination that, generally, the existing and programmed facilities, for police stations, fire stations, health clinics, and schools are adequate for the development thresholds outlined below. Similarly, there are no special sewer or water capacity constraints to undercut the service envelopes contained in the current adopted Ten-Year Water and Sewerage Plan. The envelopes have been evaluated and judged consistent with the thresholds outlined below.

In the absence of evidence to indicate a capacity constraint in any of these facilities below the thresholds shown herein, transportation has been found to be the most constraining facility at the present time, and the guidelines have been developed under a methodology that balances development against this constraint. Should other facility elements develop capacity problems, these guidelines will be amended accordingly after proper study, public notice, and public hearings.

Procedures

Within the statutory guidelines for processing preliminary subdivision plans, the following process will be followed. Applications which meet the submission requirements of the Ordinance will be presented by planning department staff as soon as possible to a

¹ §50-35K Montgomery County Code.

meeting of the Subdivision Review Committee. This Committee is composed of staff members representing the various relevant departments and agencies of government. Commentary will be requested from these agencies concerning the preliminary plan application. Planning department staff will incorporate these comments into its own review and prepare a comprehensive staff recommendation. This recommendation will then be placed on the next available regular Planning Board agenda for action by the Board, in accordance with the Board's Rules of Procedure governing subdivision applications.

If a preliminary plan is found to require the capacity added by a project scheduled in the County's CIP, but in all other respects is appropriate for approval, the plan will be conditionally approved. The preliminary plan will be permitted to record provided that at the time of recordation, the scheduled start of construction of the needed project has remained unchanged. If the scheduled start of construction has been delayed, the preliminary plan will not be permitted to record for a period of time equal to the delay in the start of construction. Due to the unique situation of the Shady Grove West area, as designated in the Gaithersburg Vicinity Draft Master Plan, future preliminary plans located in that area will have a different condition placed on their approvals. Such plans will not be permitted to record until such time when contracts for construction have been executed for future projects needed for the subdivision to have adequate transportation facilities.

Criteria

In this document, the County has been divided into a number of policy areas. Each policy area has been assigned a threshold number for both housing and employment, beyond which it is estimated that the capacity of some or all of the available public facilities will have been exceeded. These thresholds are based on a comprehensive evaluation of the combined ability of all the existing and programmed public facilities. In general, these existing and programmed facilities will adequately serve the level of development represented by the threshold numbers. Reflected in these thresholds is an evaluation of the unique characteristics of each policy area with respect to such elements as relative degrees of transit service, through traffic, etc. From time to time, these thresholds will be amended by the Planning Board, after public hearing, to reflect changing conditions such as additions to the Capital Improvements Programs, changing patterns of public facility usage, revised levels of public service, etc.

~~In Chapter IV on Forecasts, the third round of the cooperative forecasting process was described. Due to the timing of those revisions relative to the timing of the threshold analysis, those new cooperative forecasts have not yet been used as a criteria in preparing the amended thresholds. The regional small area forecasts are scheduled to be available by the end of the year, therefore, they will be used in preparing the threshold amendment for new year.~~

The following map (Map 1, page 11) combines policy areas into groups and indicates acceptable levels of service for each grouping. The policy area group has similar public transit service. A "full service" area has frequent Metro, concentrated feeder and community bus, kiss-'n'-ride and easier walk access. "Frequent" transit service areas have some Metro, regional bus, feeder bus, kiss-'n'-ride, and community bus. An area designated as "moderate" has regional bus and/or commuter rail access as well as limited Metrorail park-'n'-ride and feeder bus. "Limited" areas have regional bus and/or commuter rail access as well as park-'n'-ride.

Threshold Interpretation

Planning staff will maintain records of: (1) the total amount of development that actually exists in each policy area expressed in terms of dwelling units and employees; and (2) the amount that would be added to this if all outstanding preliminary plans which have been approved by the Planning Board and which also have received sewer authorization approval from the Washington Suburban Sanitary Commission were also in place. This total will be used as a base, to which during staff evaluation the amount of development that would be generated by each new preliminary plan application will be added. If the combined total does not exceed the threshold of the Comprehensive Staging Policy Guideline, the application will be given a presumption that it meets the adequate public facilities test.

It is recognized that all sewer authorizations will not result in construction. An approved preliminary plan generally obtains a sewer authorization within four months of its initial approval. Historically, 70 percent of approved preliminary plans proceed to record plat. The remaining plans expire and must be resubmitted as preliminary plans if they wish to develop. Sewer authorizations no longer have a constraint on the volume of capacity authorized. The major expenses involved in maintaining an authorization are now deferred to a point much closer to actual building permit. The life of a sewer authorization is now keyed to the life of a preliminary plan. These factors make it possible to stock pile an authorization far in advance of development. Discounting the list of sewer authorizations is a means of bringing the total amount of development more in line with development which will actually occur within the time frame of adopted Capital Improvements Programs.

Staff will use the following criteria for dwelling units to determine the amount of planned development which can be "discounted." Authorizations which are more than seven years old shall be discounted by 90 percent of their remaining authorization. (This corresponds to the decrease historically experienced when these older record plats apply for a new subdivision.) Authorizations for apartments which exceed the staff's six year forecast will be discounted. (The outlook for apartments is uncertain but the risk of the forecast being exceeded within the six month period at which time the discount will be reviewed is minimal.) Non-apartment authorization will be discounted to the extent to which they exceed 300 units per authorization. (Large developers average 50 units a year per subdivision. During the six year time frame of the CIP, the large developer will build an average of 300 units.)

Staff will use the following criteria to determine non-residential discounts. Sewer authorizations which propose speculative office construction will be identified. With the assistance of the County Office of Economic Development, the staff will isolate from that list those projects which have not taken any steps to proceed through the development process other than sewer authorization, have not obtained financing, and have not risen to the level of notice in published list of anticipated development. Those projects which meet these criteria will be totaled as a discount for each area.

The discount will be calculated and will remain constant for six months or until building permits for apartments exceed fifty percent of the six year forecast. The discount procedure and assumptions will be reexamined by the Planning Board, either when warranted by building permits or at the expiration of six months from the date of adoption, whichever ever is sooner.

The discount comes into use when the threshold has been reached in a policy area. The discount permits planned development to be approved in excess of the threshold up to the amount of the discount. Where the development pipeline already exceeds the threshold by more than the discount, the discount will be of no effect. In order to avoid large developers from being the sole user of discounts, residential plans which are over the threshold will not be permitted to take advantage of the discount for more than 75 dwelling units per parcel of land at one location. (Definition of "parcel of land at one location" will be identical to the definition found in the local area transportation review section for determining the existence of 50 trips.) There is no limitation on the amount of the discount available per plan for employment. Each time the discount is invoked in order to approve a plan, the discount will be lowered by the amount the plan exceeded the threshold.

To illustrate the operation of the discount policy, the Fairland/White Oak Area will be used. In September 1983⁴, the pipeline (development with preliminary plan and sewer authorization approval plus units completed since 1977) stood at ~~H-295~~ 13,133 units. The proposed residential threshold is 11,000. If there were no discount policy, all future preliminary plan applications in the area would be over the threshold. A total of ~~3,815~~ 2,133 preliminary plan applications in the area would be over the threshold. A total of ~~3,815~~ 2,600 units are in excess of 300 per development or in multi-family units which exceed the forecast. These units are to be "discounted" from the pipeline. When the discounted units are subtracted from the pipeline, the discounted pipeline become ~~7,480~~ 547. This discounted pipeline is ~~3,520~~ 547 units below the threshold. Therefore on the basis of the threshold analysis another ~~3,520~~ 547 units could be approved but each applicant could only use 75 units.

A preliminary plan for more than 49 dwelling units or 49 peak hour trips in an area where the discount exceeds the pipeline of development in excess of the threshold, will be required to pass local area transportation review for approval. If such a plan is unable to pass local area review it may be conditionally approved such that the development which may proceed to record plat will produce less than 50 dwelling units or 50 peak hour trips. When the applicant can demonstrate that the full plan as submitted, including those lots which have been approved for recording, has adequate public facilities for all facilities, then the remainder of the preliminary plan will be able to obtain record plat approval. Plans of less than 50 dwelling units or 50 peak hour trips may be approved without any local area review in areas where a discount is available. Further subdivisions on such parcels which would bring the total units or peak hour trips in excess of 49 trips will be treated as if the entire proposal, as determined by reference to the original tract, had been submitted as one preliminary plan.

In cases where the planning staff believes that, notwithstanding the presumption of adequacy given to plans which meet the threshold test, there may be created a serious local public facility overload, staff shall undertake a more detailed local area review. If the result of this review is to demonstrate that this will indeed result in a serious local problem which cannot be resolved within the context of the existing public facility network and the adopted Capital Improvements Program, staff shall recommend denial of the project to the Planning Board. Applicants will be advised if such a local review is undertaken, and will be required to provide additional analytical background such as traffic studies, to assist staff to complete this analysis within the statutory time frame.

Threshold Flexibility

In some cases it may be in the public interest for the staff to recommend, and/or the Board to grant approval to a preliminary plan application that exceeds the threshold. Caution should be exercised in allowing the threshold to be exceeded. In general, such approval above the threshold will be conditioned upon the future construction, by either the applicant and/or the government, of some public facility projects or the operation of a transit program which, if added to the approved Capital Improvements Program (CIP) as a programmed facility, will add capacity to the road network and result in the subdivision meeting the adequacy tests of local area review and will not result in lowering the area-wide level of service. Usually, the nature and design of the additional project or program will need to receive prior approval from the planning staff and from the relevant governmental agency responsible for constructing and maintaining such facilities or programs.

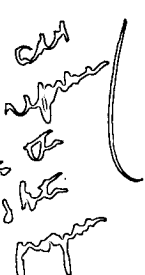
Where the applicant commits to provide a transit, para-transit or ridesharing program, such applicant may be deemed to have passed the threshold test if the Board finds that the program will reduce the number of peak hour peak direction automobile trips by at least as many trips as would be generated by the proposed development. After a preliminary plan has been approved on this basis, later applicants may be credited for reduced trips only to the extent that the new proposal will provide additional reductions sufficient to accommodate trips generated by the proposed subdivision.

In cases where the applicant agrees to pay for the facility, there will normally be no limit on the size or extent of the project, subject to its being in accordance with an adopted Master Plan or other relevant policy statement. In cases where the approval is conditioned on the government adding some facility projects to the CIP, the Board and staff will be guided by such judgements as: how probable the addition of such projects may be; how large and expensive the projects are; how long they may take to implement; and other similar considerations. In general, this latter type of conditional approval will be limited to situations in which the additional public facility projects are relatively small and easily achieved.

Specific Standards

To better interpret the general provisions described in the Adequate Public Facilities Ordinance itself, the following administrative standards will be observed.

(1) Capital Improvements Program Definition

A public facility project is considered "programmed" and thus counted as an available public facility capacity if it is scheduled for at least ~~50~~ 80 percent of its total construction cost to be expended within the six-year period of the adopted CIP. Where such a road project either crosses several policy areas or will be built over a period of time in identifiable segments, the Planning Board may include only those segments which will be completed or started within six years. Staff may request construction schedules from the agency undertaking major projects which meet the above criteria and transmit its findings to the Board.

(2) Roads, Street Access, and Public Transportation

In those policy areas which have not been assigned a specific threshold figure, applications will be reviewed under a transportation standard of not exceeding level of

service D at the nearest critical intersection, as per Section 4 of the Local Area Transportation Review Guidelines.

In those policy areas which have been assigned a specific threshold figure, no local area review will be undertaken if the total development, as defined above, does not exceed the threshold, and if the subdivision application generates less than 50 vehicle trips during peak hours. If the application generates more than 50 peak hour trips, it will be evaluated under a separate set of criteria, called Guidelines for Local Area Transportation Review.² The basic procedural elements of these guidelines are shown on Chart 9.

(3) Sewerage and Water Service

In accordance with the language of the Adequate Public Facilities Ordinance itself, in both policy areas with a threshold and those without one, applications will be considered adequately served by sewerage and water if the subdivision is located in an area in which water and sewer service is presently available, under construction, is designated by the County Council for extension of service within the first two years of a current approved Ten Year Water and Sewerage Plan, or, if the applicant either provides a community water and/or sewerage system, or meets health requirements for septic and/or well system, as outlined in the Adequate Public Facilities Ordinance. These requirements are determined either by reference to the Council adopted Ten-Year Water and Sewerage Plan, or by obtaining a satisfactory percolation test from the County Health Department. Applications will only be accepted for further planning staff and Board consideration if they present evidence of meeting the appropriate requirement.

(4) General Health, Safety, and Welfare

If an application does not generate development such as to exceed a threshold, or if it is located in a policy area where no threshold has been designated, planning staff will consider the programmed services to be adequate for facilities such as police stations, firehouses, health clinics, and schools unless there is evidence to believe that a local area problem will be generated. Such a problem is one which cannot be overcome within the context of the adopted Capital Improvements Program and Operating Budgets of the relevant agencies. Where such evidence exists, either through agency response to the Subdivision Review Committee clearinghouse or through public commentary or planning staff consideration, a local area review shall be undertaken. Such review shall seek a written opinion from the relevant agency and will require, if necessary, additional data from the applicant in order to facilitate the completion of the planning staff recommendation within the statutory time frame for Planning Board action.

(5) General Policy Considerations

In cases where the application generates development in excess of the threshold, and the planning staff and/or Board are willing to consider a possible approval conditioned upon some future additions to the Capital Improvements Program, or some additional program to increase capacity, the planning staff may undertake special studies to assist in making such a judgement involving such aspects as fiscal impact, housing price, unique character, etc. In such cases, staff will require, if necessary, additional data from the applicant in order to facilitate the evaluation.

² See Local Area Transportation Review following this section.

Revision Process

These Administrative Guidelines will remain in effect until amended after public hearing by a formal vote of the Planning Board. It is expected that the next revision to these guidelines will be prepared in the fall of 1984/1985 for public hearing, and adoption by January 1, 1985/1986.

~~To assist general public understanding of the methodologies and criteria used in this process, the Board will continue to appoint a Citizens Technical Advisory Committee (CTAC). The CTAC will be composed of County citizen representatives of a broad spectrum of County interests, together with ex-officio members from appropriate County and State agencies. The committee will be asked to review the staff draft 1984 CPP and other matters related to the administration of the Adequate Public Facilities Ordinance as requested by the Board. The committee will be invited to share its comments and ideas with the Planning Board prior to the Board approving an amended version of this document for general release to the public in the fall of 1984.~~

DEFINITIONS

POTENTIAL FURTHER TRANSPORTATION IMPROVEMENTS

Facilities which if included as Programmed Facilities have the potential of increasing the development threshold while maintaining an acceptable level of service.

The list of such improvements is not necessarily complete. Alternative improvements or other independent projects, as yet undefined, may also be capable of adding transportation capacity.

LOCAL AREA REVIEW

The process used to determine if the proposed development will produce excessive local detrimental impact beyond the capacity of existing and programmed public facilities. (See detailed guidelines attached.)

PROGRAMMED FACILITY

A capital facility project which is contained within the approved Six Year Capital Improvements Program of an appropriate agency, such that at least half 80 percent of the funds necessary for construction or operation are scheduled for expenditure within the six-year time frame. Where such road project either crosses several policy areas or will be built over a period of time in identifiable segments, only those sections identified by the Planning Board will be deemed "programmed."

RECORD PLAT

A preliminary plan of subdivision which has been approved for recordation by the Montgomery County Planning Board or is already a recorded plat in the official Montgomery County land records.

SEWER AUTHORIZATION/PIPELINE

An approval by the Washington Suburban Sanitary Commission to provide sewer service to a proposed development under certain conditions, primarily related to engineering standards and administrative fees. In monitoring those authorizations, planning staff will use the Sanitary Commission's files, with periodic updating. Sewer authorizations are an indication of the development pipeline. "Sewer Authorization Pipeline" refers to sewer authorizations plus completed development since 1977.

STAGING POLICY AREA

A geographic subarea of the county, delineated by the Planning Board, for the purpose of staging analysis and the establishment of threshold capacities as appropriate. (See Map 1, page 11).

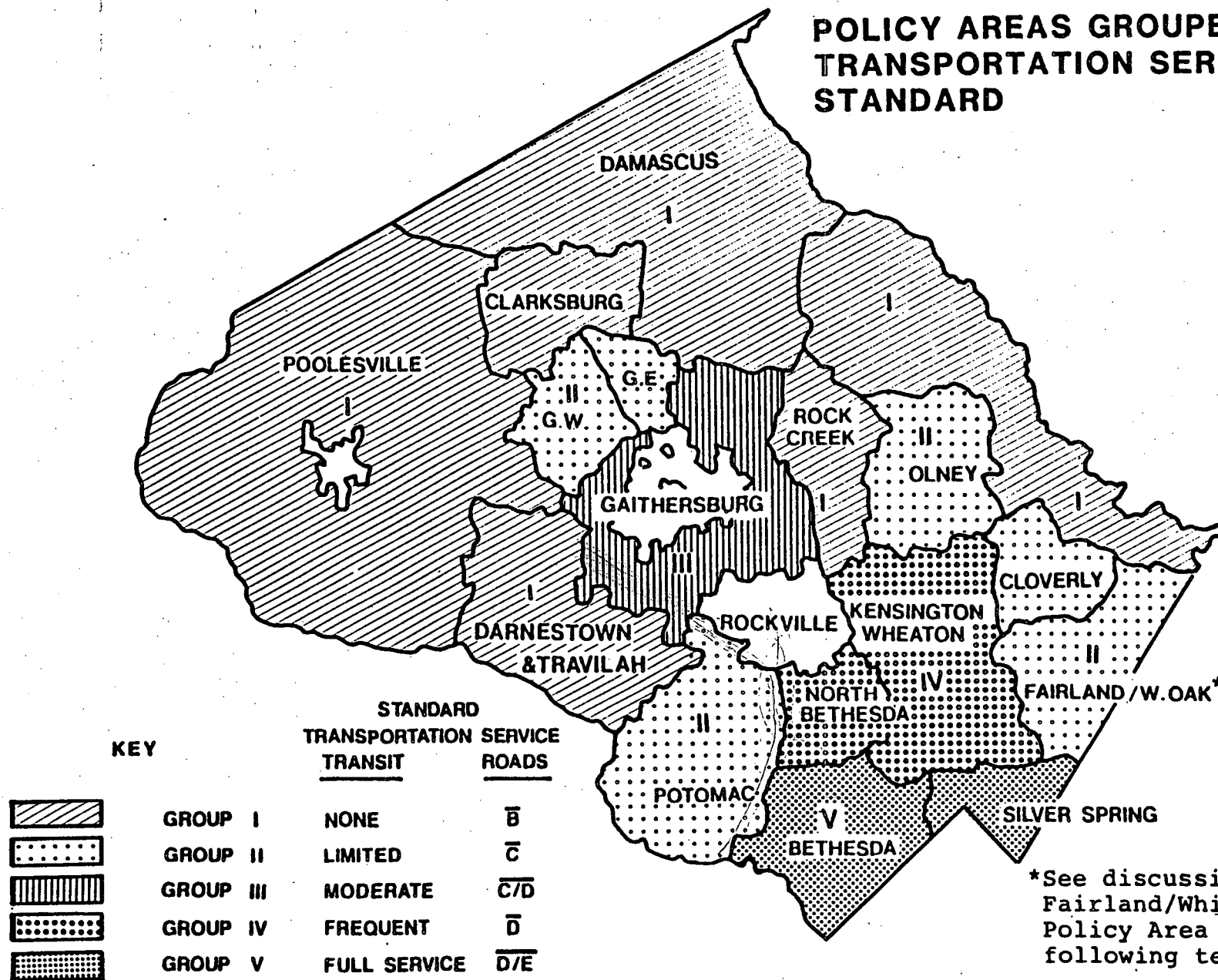
THRESHOLD

A total amount of development expressed in terms of dwelling units and/or employees that has been determined by the Planning Board to be balanced appropriately, on the basis of an area wide average, with the existing and programmed facilities for the area.

Dwelling units may be single-family detached, single-family attached, garden apartments, and high rises. Each dwelling unit is counted as one unit.

The number of employees produced by development is estimated on the basis of the floor area and intended use of the planned structures. Unless the development is unique in some manner, statistical averages are used for the four major land use categories: office (200 square feet per employee) retail (400 square feet per employee) industrial (450 square feet per employee), and "other" (500 square feet per employee).

POLICY AREAS GROUPED BY TRANSPORTATION SERVICE STANDARD



*See discussion of
Fairland/White Oak
Policy Area in
following text.

SOURCE: M-NCPPC

POLICY AREA RELATIONSHIP TO PLANNING AREAS

Olney	Includes the southern portion of the Olney Planning Area, the northern border defined by Brookville Road and Brighton Dam Road. Transfer of Development Rights (TDR) sending areas are located north of the policy area.
Germantown West	Identical to that portion of the Germantown Planning Area which lies west of I-270.
Germantown East	Identical to that portion of the Germantown Planning Area which lies east of I-270.
Cloverly	Identical to the portion of the Eastern Montgomery County Master Plan defined as Cloverly; northern border is defined by Ednor Road and Spencerville Road.
Potomac	Includes all of the Potomac Master Plan area, plus a small suburbanized part of Travilah, south of Glen Mill Road and north of the Potomac Electric Power Company right-of-way.
Fairland/White Oak	Identical to the Fairland/White Oak Planning Areas.
Gaithersburg	Includes all of the Gaithersburg and Gaithersburg Vicinity Planning Areas, plus the area bordered by Muncaster Mill Road, Rock Creek Park and the northern border of Rockville; also includes the area immediately south of Route 28, designated for R-200 zoning in the Potomac Subregional Master Plan.
North Bethesda	Identical to the North Bethesda Planning Area.
Kensington/Wheaton	Includes all of the Kensington and Wheaton Planning Areas, plus that portion of the Kemp Mill/Four Corners Planning Area which lies north of the Beltway (I-495).
Bethesda	Identical to the Bethesda Planning Area.
Silver Spring/Takoma Park	Includes all of the Silver Spring and Takoma Park Planning Areas, plus that portion of the Kemp Mill/Four Corners Planning Areas which lies south of the Beltway (I-495).

TABLE 1
1985 STAGING THRESHOLDS^{1/}
BASE YEAR 1977

Policy Area and Traffic Shed	Residential ^{2/} Threshold			Employee ^{2/} Threshold		
GROUP I POLICY AREAS						
Rock Creek Damascus Poolesville Clarksburg Travilah/Darnestown	Staging determined by level of service D at nearest intersection or for other policy considerations.					
	Adopted ^{3/} 1984 Thresholds	Proposed 1985 Thresholds	Difference between 1985 & 1984	Adopted ^{3/} 1984 Thresholds	Proposed 1985 Thresholds	Difference between 1985 & 1984
GROUP II POLICY AREAS						
Olney	5,000	5,000	0	4,000	4,000	0
Germantown West ⁵	3,000	3,000	0	1,000	1,000	0
Germantown East	1,000	1,000	0	3,500	3,500	0
Cloverly	500	500	0	500	500	0
Potomac	6,300	6,300	0	3,200	3,200	0
Fairland/White Oak	11,000	11,000	0	15,000	15,000	0
GROUP III POLICY AREAS						
Gaithersburg	22,000	23,000	1,000	46,500	50,500	4,000
GROUP IV POLICY AREAS						
North Bethesda	7,000	7,000	0	29,000	29,000	0
Kensington/Wheaton	11,000	11,000	0	10,000	10,000	0
GROUP V POLICY AREAS						
Bethesda	6,000 ^{4/}	6,000	0	21,000 ^{4/}	21,000	0
Silver Spring/Takoma Park	4,000	4,000	0	14,000	14,000	0
COUNTY TOTAL ⁶	76,800	77,800	0	147,700	151,700	0

^{1/} Thresholds for 1985 are derived from the Capital Improvements Program approved in May 1984, and are expected to remain in force roughly between December 1984 and December 1985.

^{2/} Residential thresholds are measured in terms of numbers of dwelling units. Employee thresholds are measured in terms of number of jobs. Employment estimates are derived from submitted applications by Planning Board staff, based upon the proposed use and square footage of new structures.

^{3/} Allowable number of employees and residential units above the 1977 base period as determined by the adequacy of (1) existing transportation facilities, plus (2) transportation projects which are programmed for 80% of construction in the current Montgomery County CIP and the Maryland Department of Transportation's Consolidated Six Year Transportation Program.

^{4/} The staging elements of the adopted Bethesda CBD Sector Plan are adopted as part of this Comprehensive Staging Policy and are incorporated herein by reference. The limitations of the Bethesda CBD Sector Plan take precedence over the threshold established for the Bethesda Policy Area in this document.

^{5/} The thresholds for Germantown are being left at 3,000 dwelling units and 1,000 employees even though the Germantown section of the Great Seneca Highway is no longer considered as being programmed for construction. They will not be increased when that section of the Great Seneca Highway is 80 percent funded for construction.

^{6/} The City of Rockville is excluded as a policy area and from this County total. However, the traffic generated from existing and future development in Rockville is accounted for in calculating these thresholds.

SOURCE: Montgomery County Planning Board, Research Division.

**CURRENT NET REMAINING CAPACITY UNDER 1984 THRESHOLDS
(WITHOUT CONSIDERATION OF DISCOUNT POLICY)**

	Employees Threshold	Employees				Additional*3 Employees Permitted (Positive Values In Column 8)
		Pipeline: Employees*1 Since 1977 Plus Out- standing Sewer Authorization	Threshold*2 Minus Pipeline (Column 6 Minus Column 7)	Route 118 Club 1 and 2	Threshold Minus Pipeline Minus Clubs	
GROUP II POLICY AREAS	27,200	26,938	262			262
OLNEY	4,000	1,289	2,711		2,711	2,711
GERMANTOWN WEST*4	1,000	7,473	(6,473)	4,069	(2,404)	0
GERMANTOWN EAST	3,500	2,192	1,308		1,308	1,308
CLOVERLY	500	63	437		437	437
POTOMAC*5	3,200	3,200	0		0	0
FAIRLAND/WHITE OAK	15,000	12,721	2,279		2,279	2,279
GROUP III POLICY AREAS	50,500	27,614	22,886		22,886	22,886
GAITHERSBURG	50,500	27,614	22,886		22,886	22,886
GROUP IV POLICY AREAS	39,000	33,208	5,792		5,792	5,792
NORTH BETHESDA	29,000	28,704	296		296	296
KENSINGTON/WHEATON	10,000	4,504	5,496		5,496	5,496
GROUP V POLICY AREAS	35,000	18,171	16,829		16,829	16,829
BETHESDA*6	21,000	14,617	6,383		6,383	6,383
SILVER SPRING/TAKOMA P	14,000	3,554	10,446		10,446	10,446
TOTAL	151,700	91,046	N.A.			

*1 Completions through January 1, 1984, sewer authorizations as of September 1984. These numbers are subject to periodic revision.

*2 A positive number indicates existing and proposed developments totaling less than the threshold capacity. A negative number indicates threshold capacity has been exceeded.

*3 Threshold minus pipeline. Any or all of these numbers maybe lower because of the effects of local area transportation review. Where Column 3 or 9 is a negative number, additional employees permitted is reported as zero.

*4 Threshold does not include capacity added by developer sponsored road improvements.

*5 Threshold capacity equal with the zoning envelope.

*6 Preliminary plans within the Shady Grove West area will be subject to the conditions placed upon them in the Gaithersburg Master Plan.

*7 The Bethesda CBD Sector Plan supersedes the threshold established for the Bethesda Policy Area.

SOURCE: Montgomery County Planning Board, Research Division

*Sept 84 data
March 85 table*

**CURRENT NET REMAINING CAPACITY UNDER 1984 THRESHOLDS
(WITHOUT CONSIDERATION OF DISCOUNT POLICY)**

Residential						
	Dwelling Unit Threshold	Pipeline: Completions*1 Since 1977 Plus Out- standing Sewer Authorization	Threshold*2 Minus Pipeline (Column 1 Minus Column*2	Route 118 Clubs I and II /Oak Mills (Capacity not in threshold.)	Threshold Minus Pipeline minus Clubs	Additional*3 Units Permitted (Positive Values In Column 3)
GROUP II POLICY AREAS	26,800	42,845	(16,045)		(16,045)	
OLNEY	5,000	3,981	1,019		1,019	1,019
GERMANTOWN WEST*4	3,000	15,845	(12,845)	7,265	(5,580)	0
GERMANTOWN EAST	1,000	3,025	(2,025)	208	(1,817)	0
CLOVERLY	500	2,492	(1,992)		(1,992)	0
POTOMAC*5	6,300	4,369	1,931		1,931	1,931
FAIRLAND/WHITE OAK	11,000	13,133	(2,133)		(2,133)	0
GROUP III POLICY AREAS	23,000	24,354	(1,354)		(1,354)	
GAITHERSBURG	23,000	24,354	(1,354)		(1,354)	0
GROUP IV POLICY AREAS	18,000	12,882	5,118		5,118	5,118
NORTH BETHESDA	7,000	3,897	3,103		3,103	3,103
KENSINGTON/WHEATON	11,000	8,985	2,015		2,015	2,015
GROUP V POLICY AREAS	10,000	3,972	6,028		6,028	6,028
BETHESDA*6	6,000	2,888	3,112		3,112	3,112
SILVER SPRING/TAKOMA PARK	4,000	1,084	2,916		2,916	2,916
TOTAL	77,800	84,053	N.A.		N.A.	

- *1 Completions through January 1, 1984, sewer authorization September 1984. These numbers are subject to periodic change.
- *2 A positive number indicates existing and proposed developments totaling less than threshold capacity. A negative number indicates threshold capacity has been exceeded.
- *3 Threshold minus pipeline. Any or all of these numbers may be lower because of the effect of local transportation review. Where Column 3 or 9 is a negative number, additional units permitted is reported as zero.
- *4 Threshold does not include capacity added by developer sponsored road improvements.
- *5 Threshold capacity equal with the zoning envelope.
- *6 Preliminary plans within the Shady Grove West area will be subject to the conditions placed upon them in the Gaithersburg Master Plan.
- *7 The Bethesda CBD Sector Plan supersedes the threshold established for the Bethesda Policy Area.

SOURCE: Montgomery County Planning Board, Research Division.

*Copy 84 data
March 85*

**CURRENT NET REMAINING CAPACITY UNDER 1984 THRESHOLDS*1
(WITHOUT CONSIDERATION OF DISCOUNT POLICY)**

	Residential				Employees			
	Dwelling Unit Threshold	Pipeline: Completions*1 Since 1977 Plus Out- standing Sewer Authorization	Threshold*2 Minus Pipeline (Column 1 Minus Column*2	Additional*3 Units Permitted (Positive Values In Column 3)	Employees Threshold	Pipeline: Employees*1 Since 1977 Plus Out- standing Sewer Authorization	Threshold*2 Minus Pipeline (Column 6 Minus Column 7)	Additional*3 Employees Permitted (Positive Values In Column 8)
GROUP II POLICY AREAS	26,800	42,845	(16,045)		27,200	26,938	262	262
OLNEY	5,000	3,981	1,019	1,019	4,000	1,289	2,711	2,711
GERMANTOWN WEST*4	3,000	15,845	(12,845)	0	1,000	7,473	(6,473)	0
GERMANTOWN EAST	1,000	3,025	(2,025)	0	3,500	2,192	1,308	1,308
CLOVERLY	500	2,492	(1,992)	0	500	63	437	437
POTOMAC*5	6,300	4,369	1,931	1,931	3,200	3,200	0	0
FAIRLAND/WHITE OAK	11,000	13,133	(2,133)	0	15,000	12,721	2,279	2,279
GROUP III POLICY AREAS	23,000	24,354	(1,354)		50,500	27,614	22,886	22,886
GAITHERSBURG	23,000	24,354	(1,354)	0	50,500	27,614	22,886	22,886
GROUP IV POLICY AREAS	18,000	12,882	5,118	5,118	39,000	33,208	5,792	5,792
NORTH BETHESDA	7,000	3,897	3,103	3,103	29,000	28,704	296	296
KENSINGTON/WHEATON	11,000	8,985	2,015	2,015	10,000	4,504	5,496	5,496
GROUP V POLICY AREAS	10,000	3,972	6,028	6,028	35,000	18,171	16,829	16,829
BETHESDA*6	6,000	2,888	3,112	3,112	21,000	14,617	6,383	6,383
SILVER SPRING/TAKOMA PARK	4,000	1,084	2,916	2,916	14,000	3,554	10,446	10,446
TOTAL	77,800	84,053	N.A.		151,700	91,046	N.A.	0

*1 Completions through January 1, 1984, sewer authorizations as of September 1984. These numbers are subject to periodic change.

*2 A positive number indicates existing and proposed developments totaling less than threshold capacity. A negative number indicates threshold capacity has been exceeded.

*3 Threshold minus pipeline. Any or all of these numbers may be lower because of the effect of local area transportation review. Where Column 3 or 9 is a negative number, additional units permitted is reported as zero.

*4 Threshold does not include capacity added by developer sponsored road improvements.

*5 Threshold capacity equal with the zoning envelope.

*6 The Bethesda CBD Sector Plan supersedes the threshold established for the Bethesda Policy Area.

SOURCE: Montgomery County Planning Board, Research Division.

EFFECT OF PIPELINE DISCOUNT POLICY*1

	Residential			Employees		
	(1)	(2)	(3)	(4)	(5)	(6)
	Threshold#2 Minus Pipeline	Raw Dwelling Unit Discount	Available#3 Threshold With Discounted Pipeline (Positive Values of Col. 2 Plus Column 2)	Threshold#4 Minus Pipeline	Raw Employee Discount	Available Threshold With Discounted Pipeline (Positive Values of Col. 4 Plus Column 5)
GROUP II POLICY AREAS						
OLNEY	1,019	304	1,323	2,711	0	2,711
GERMANTOWN WEST#4	(12,845)	8,543	0	(6,473)	2,540	0
GERMANTOWN EAST	(2,025)	874	0	1,308	1,460	2,768
CLOVERLY	(1,992)	403	0	437	0	437
POTOMAC#5	1,931	132	2,063	0	0	0
FAIRLAND/WHITE OAK	(2,133)	2,680	547	2,279	820	3,099
GROUP III POLICY AREAS	(1,354)	3,735	2,381	22,886	1,450	24,336
GAITHERSBURG	(1,354)	3,735	2,381	22,886	1,450	24,336
GROUP IV POLICY AREAS	5,118	2,817	7,935	5,792	4,450	10,242
NORTH BETHESDA	3,103	1,742	4,845	296	4,450	4,746
KENSINGTON/WHEATON	2,015	1,075	3,090	5,496	0	5,496
GROUP V POLICY AREAS	6,028	0	6,028	16,829	273	17,102
BETHESDA#6	3,112	0	3,112	6,383	273	6,656
SILVER SPRING/TAKOMA PARK	2,916	0	2,916	10,446	0	10,446

*1 These APF guidelines prescribe a discounting of sewer authorizations (see previous page). This discount comes into play only where the pipeline exceeds or is about to exceed the threshold and where the amount of the discount (Column 2 and 5) is greater than the aforementioned excesses (Column 1 and 4).

*2 A positive number reflects remaining capacity under threshold capacity. A negative number indicates threshold capacity has been exceeded by existing and planned development.

*3 Where the threshold minus the pipeline is greater than the raw discount, the discount policy has no practical effect. Where this situation exists an N.A. (Not Applicable) is reported in this column. Restriction on the use of capacity made available by the discount is contained in these guidelines (see previous page).

SOURCE: Montgomery County Planning Board, Research Division.

TABLE 4

ROAD PROJECT ADDED BY THE ADOPTED 1985-90 CIP
AND THE MdDOT/SHA 1984-89 CONSOLIDATED TRANSPORTATION PROGRAM

Policy Area	Roadway	State, County or City	Limits
<u>POTOMAC</u>	Montrose Road	County	Seven Locks Road to I-270 Interchange
<u>GAITHERSBURG</u>	I-370 Connector	County	I-270 to Great Seneca Highway
	Muddy Branch Road	County Gaithersburg	MD 28 (Darnestown Road) to MD 117 (W. Diamond Avenue)
<u>ROCKVILLE</u>	Key West	County, Rockville	Shady Grove Road to Gude Drive Extended

READING STAGING CHARTS

Total dwelling units and employees are indicated on vertical axis. The ceiling, threshold and pipeline numbers at the bottom of the charts use 1977 as their base year. Add the ceiling, threshold and pipeline numbers to the 1977 base to obtain the position of the appropriate line on the staging chart.

Net remaining capacity is calculated by subtracting the pipeline from the threshold. Where the pipeline already exceeds the threshold, the net remaining capacity is zero.

The shaded area on the chart represents the range between the high and low forecast.

*copy
thru 77 km*

OLNEY

Existing Conditions

Transit Availability: The Olney area is currently served by regional bus lines on Georgia Avenue, New Hampshire Avenue, and MD 108. A park-n-ride lot at Norbeck Road and Georgia Avenue is served by Metrobus.

Critical Intersections and Roadway Segments: Existing Georgia Avenue, between Norbeck Road and MD 108, is inadequate and unable to handle the future traffic volumes based on the planned development in the Olney area.

Programmed Transportation Improvements

The County FY 85/90 CIP includes the widening of Georgia Avenue between Norbeck Road and MD 108. This is to be a joint MCDOT/MdDOT project and is shown in the 1984-1989 State CTP, the project to be funded 50 percent by each agency. The intersection improvement at Georgia Avenue and Emory Lane, referenced in this document last year, was completed as part of the SHA signalization project at that intersection.

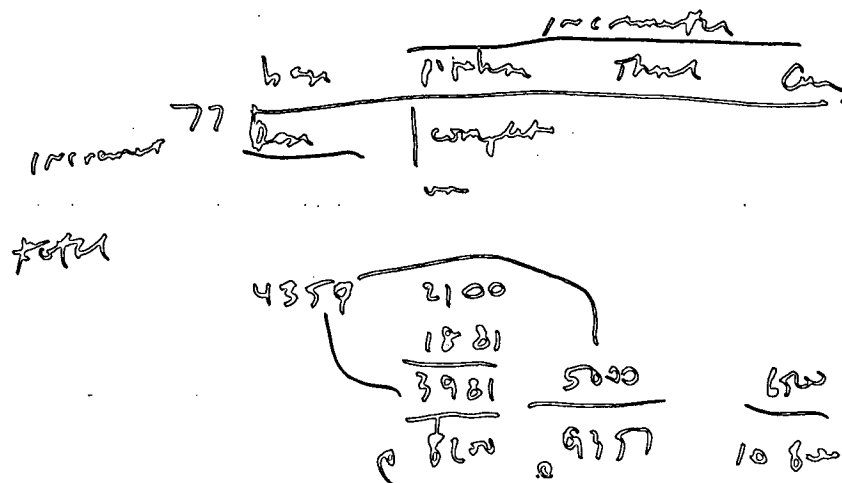
Thresholds and the Relationship to Planned Development

The widening of Georgia Avenue as a combined County and State project achieves the standard for that roadway envisioned in the Olney Master Plan. As such, a dwelling unit development threshold of 5,000 is recommended, which is the full Stage II of the Olney Plan. A threshold of 4,000 employees is also recommended.

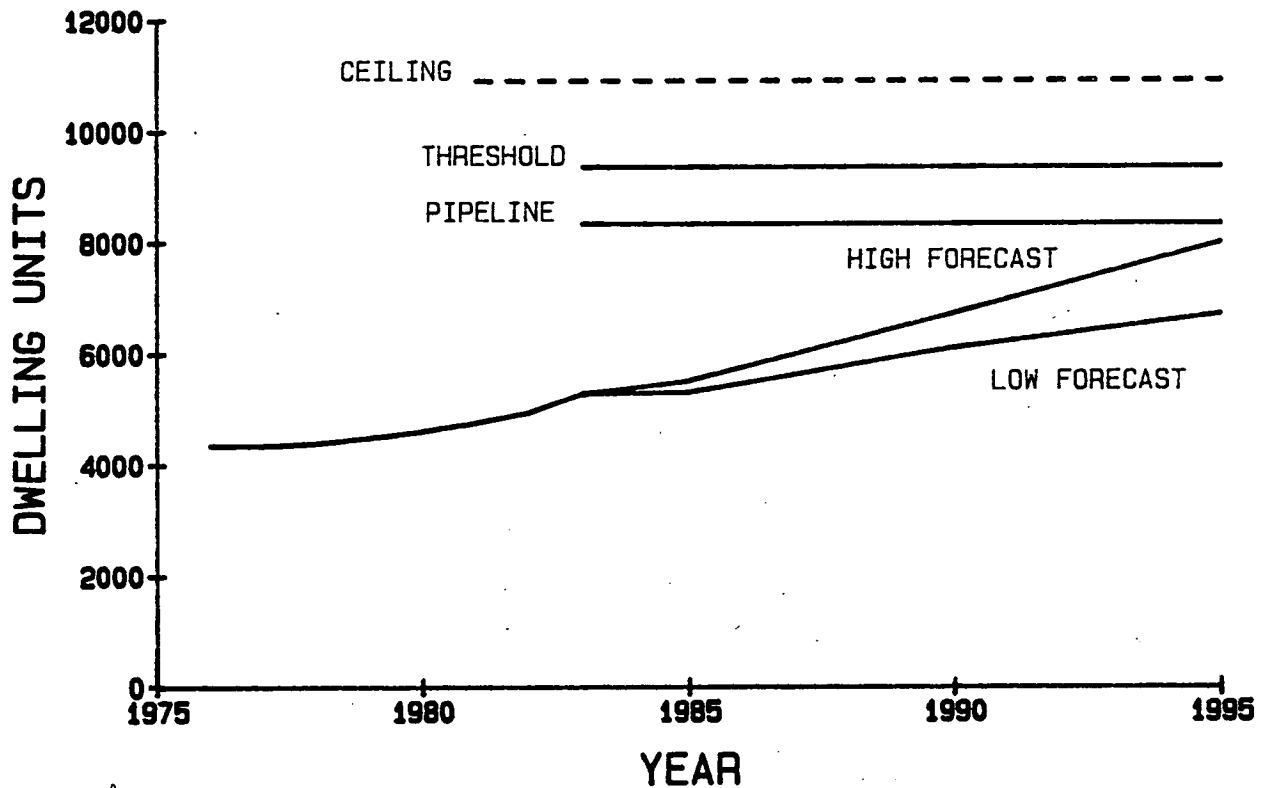
Considerations for the Future

The section of Georgia Avenue between Norbeck Road and MD 108 is inadequate.

Recommended Transportation Improvements: Several minor intersection improvements along MD 108 and Georgia Avenue are projected in conjunction with planned development subdivisions.



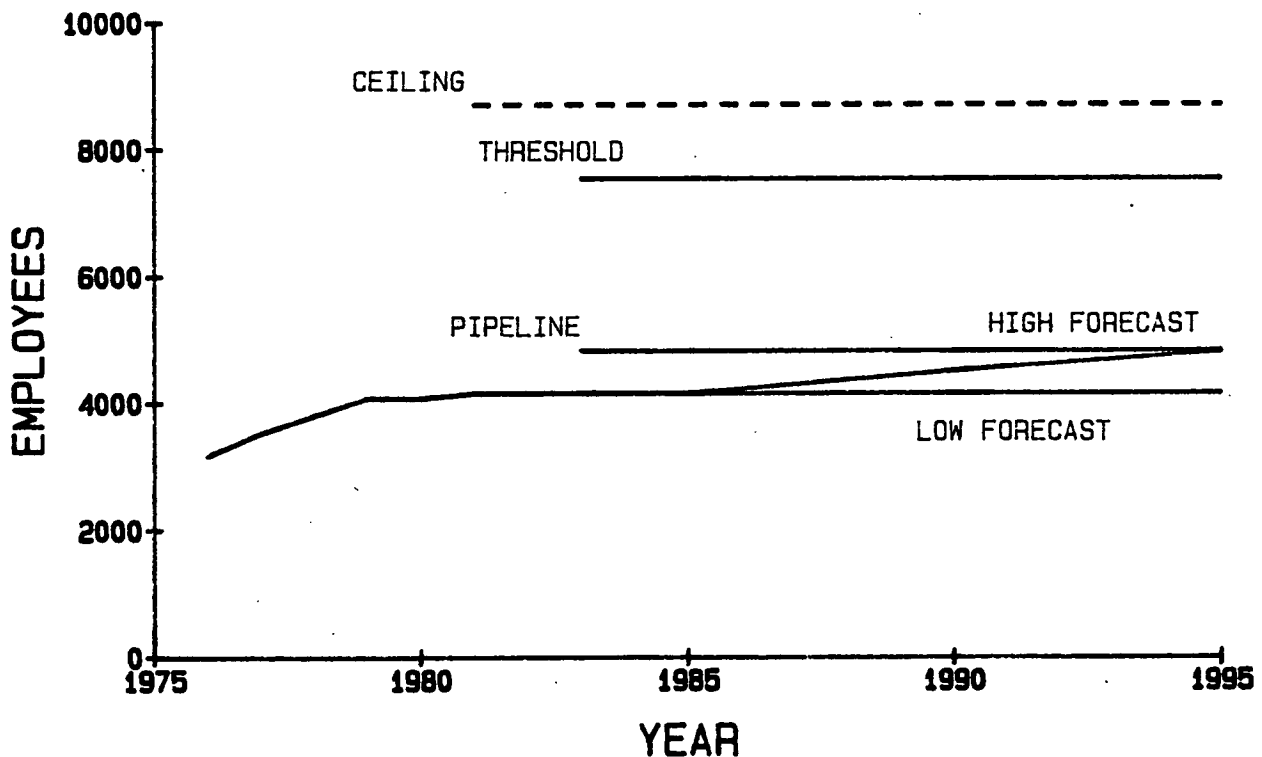
OLNEY POLICY AREA



77 km = —
 complex = —
 uninc = —

CEILING = 6,500 / THRESHOLD = 5,000
 PIPELINE = 3,981

9000
 6500



CEILING = 4,700 / THRESHOLD = 3,500
 PIPELINE = 1,289

GERMANTOWN WEST

Existing Conditions

Transit Availability: Since June 1980, MCDOT Ride-On Community Bus has been serving the western part of this area from the Lakeforest Mall in Gaithersburg via Frederick Avenue, Middlebrook Road, and MD 118. Additional bus routes will service this area when Metrorail opens to Shady Grove in December 1984.

Critical Intersections and Roadway Segments: There will be intersection capacity problems at MD 118 and Aircraft Drive, and MD 118 and Middlebrook Road when developer plans materialize into actual development. Also, the road segment of MD 118 between Middlebrook Road and Aircraft Drive will have a capacity problem.

Programmed Transportation Improvements

The current County FY 85-90 CIP includes the Great Seneca Highway and a bridge replacement project on Waring Station Road over the B&O Railroad. The Great Seneca Highway project is more than 50 percent but less than 80 percent funded for construction within the six-year CIP. With the proposed policy change in the guidelines to have 80 percent of construction funding within the six years to be considered as being programmed, this report does not consider the section of Great Seneca Highway north of MD 124 (Quince Orchard Road) as being programmed. Also, as a transit-related project, the CIP includes the Germantown Commuter Rail Station project for County participation in improving the rail passenger station at Germantown as part of the MCDOT commuter rail improvement program.

Thresholds and the Relationship to Planned Development

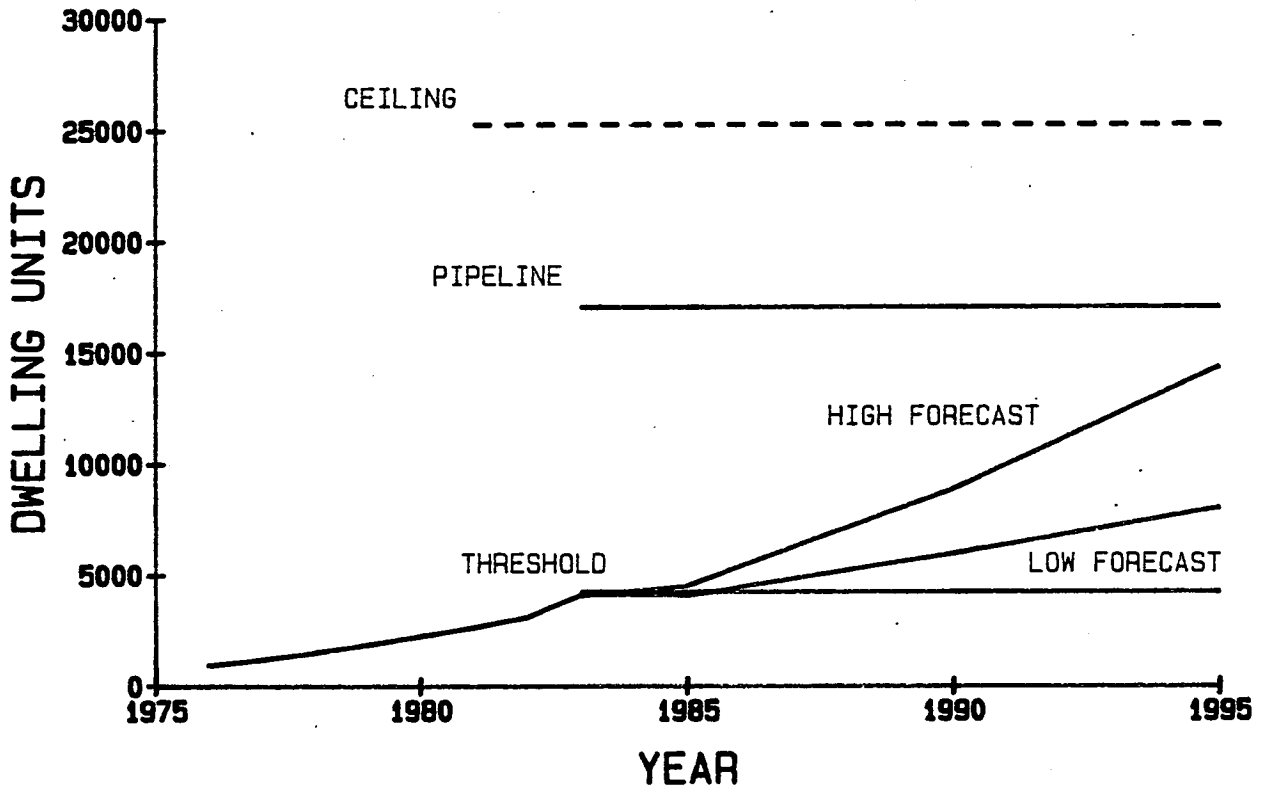
This area has a large number of sewer authorizations for residential as well as non-residential development as a result of substantial subdivision activity for the past several years. Even though the Germantown section of Great Seneca Highway is no longer considered as programmed for construction, the recommended thresholds for this area are being left at 3,000 dwelling units and 1,000 employees. They will not be increased when this section of Great Seneca Highway is 80 percent funded for construction. However, for purposes of local area review this section of Great Seneca Highway will not be used in the analyses until it is 80 percent funded for construction. For both residential and employment thresholds, the sum of the completions since 1977 and the current sewer authorizations exceed the thresholds by significant amounts. Consequently, transportation improvements (the MD 118 roadway between Middlebrook Road and Aircraft Drive and intersection improvements) are required as a condition for final APF approval for a number of preliminary subdivision plans. The MD 118 roadway improvement project is currently being developed through private contributions, and the County may participate at a later stage. This roadway improvement has limited capacity, and additional roadway improvements have been identified in reviewing recent subdivision plans establishing a second "club." The second roadway improvements will be made on MD 118 between the I-270 interchange and Wisteria Drive, Middlebrook Road between MD 118 and Great Seneca Highway, and several area intersections. These improvements also have been subscribed to their capacity, and the identifying further improvements is under study. Because these MD 118 and associated improvements are not contained in the current adopted CIP, they will not be counted as adding to the threshold capacity, except for those developers who will contribute to their construction. Details of these road projects and developer contribution have been worked out jointly among the Planning Board staff, County Executive staff, and participating developers.

Considerations for the Future

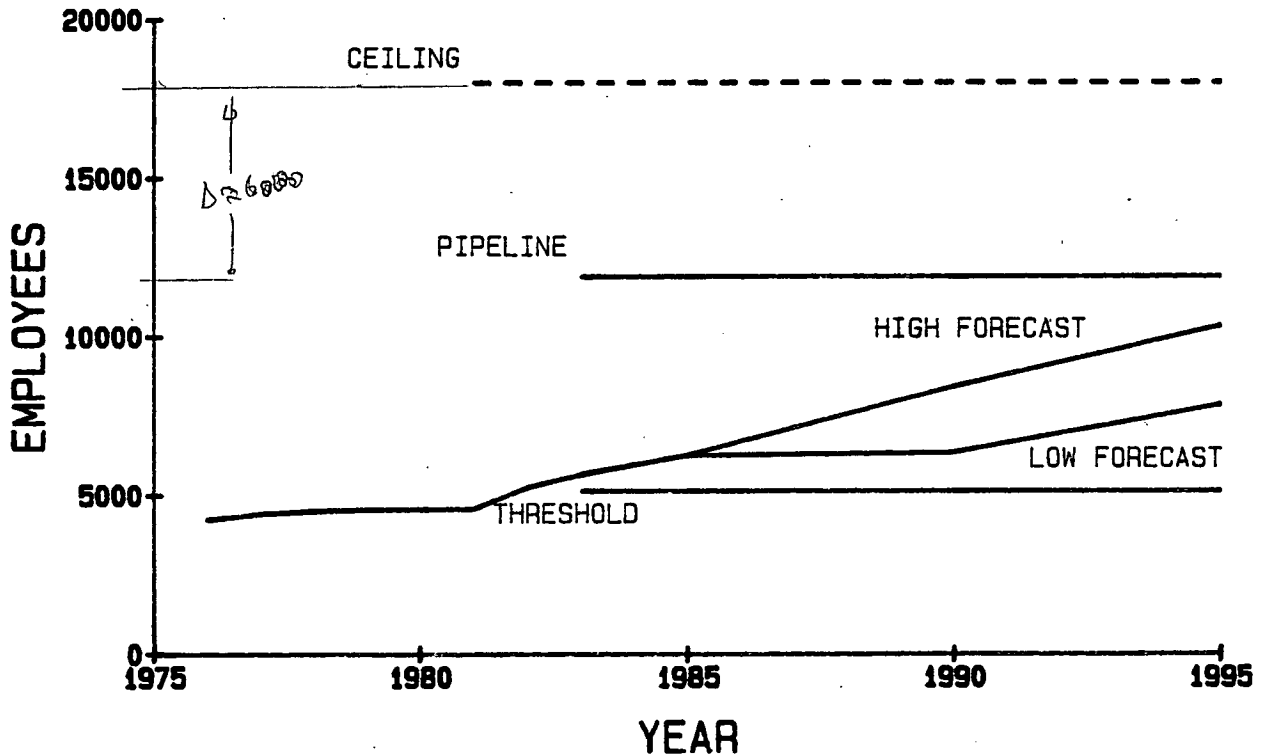
Areas of Local Congestion: To avoid potential local congestion, it is anticipated that a portion of MD 118 will be widened to six lanes and have intersection improvements at Aircraft Drive, Crystal Rock Drive, Middlebrook Road, and Clopper Road through private developer contributions and construction.

Recommended Transportation Improvements: Before additional growth can be approved as envisioned by the Germantown Master Plan Amendment, several actions by transportation agencies and private sector developers should be carried out. MCDOT should keep the current schedule for the Great Seneca Highway and should increase the funding in the program so that each potential phase of the entire project is sufficiently funded for construction. MdDOT should take, as a component from the recently completed project planning study for I-270, a separate project to provide for an interchange at Middlebrook Road. This is similar to what was done by the MdDOT to provide for the programming of an upgraded interchange at Montgomery Village Avenue and West Diamond Avenue. From a County-wide development perspective, a Middlebrook Road Interchange would be an important project. MdDOT should also reinstate the MD 118 Project Planning Study with a reduced scope of alternatives covering the area from MD 117 (Clopper Road) to MD 355 (Frederick Avenue). Work should also be initiated on a Project Planning Study of MD 117 (Clopper Road) from Longdraft Road to MD 118 (Germantown Road). In the short-term, new developments in this area would still have the option of identifying and participating in clubs for specific projects or programs which add to transportation capacity. MCDOT should consider a project to widen Middlebrook Road between Great Seneca Highway and MD 355, to be done in conjunction with the MdDOT project for the Middlebrook Road Interchange with I-270.

GERMANTOWN WEST POLICY AREA



CEILING= 24,100 / THRESHOLD= 3,000
PIPELINE= 15,845



CEILING= 13,900 / THRESHOLD= 1,000
PIPELINE= 7,473

GERMANTOWN EAST

Existing Conditions

Transit Availability: Since June 1980, MCDOT Ride-On Community Bus has been serving this area from the Lakeforest Mall in Gaithersburg via Frederick Avenue, Middlebrook Road, and Route 118. Additional bus routes will service this area when Metrorail opens to Shady Grove in December 1984.

Critical Intersections and Roadway Segments: There are intersection capacity problems at MD 355 and MD 27, MD 355 and MD 118, and MD 355 and Middlebrook Road. Insufficient roadway segment capacity exists on MD 118 and may develop on MD 355 north of MD 118 due to a large number of approved preliminary plans in the immediate area.

Programmed Transportation Improvements

The current County FY 85-89 CIP includes an intersection improvement project at MD 118 and MD 355.

Thresholds and the Relationship to Planned Development

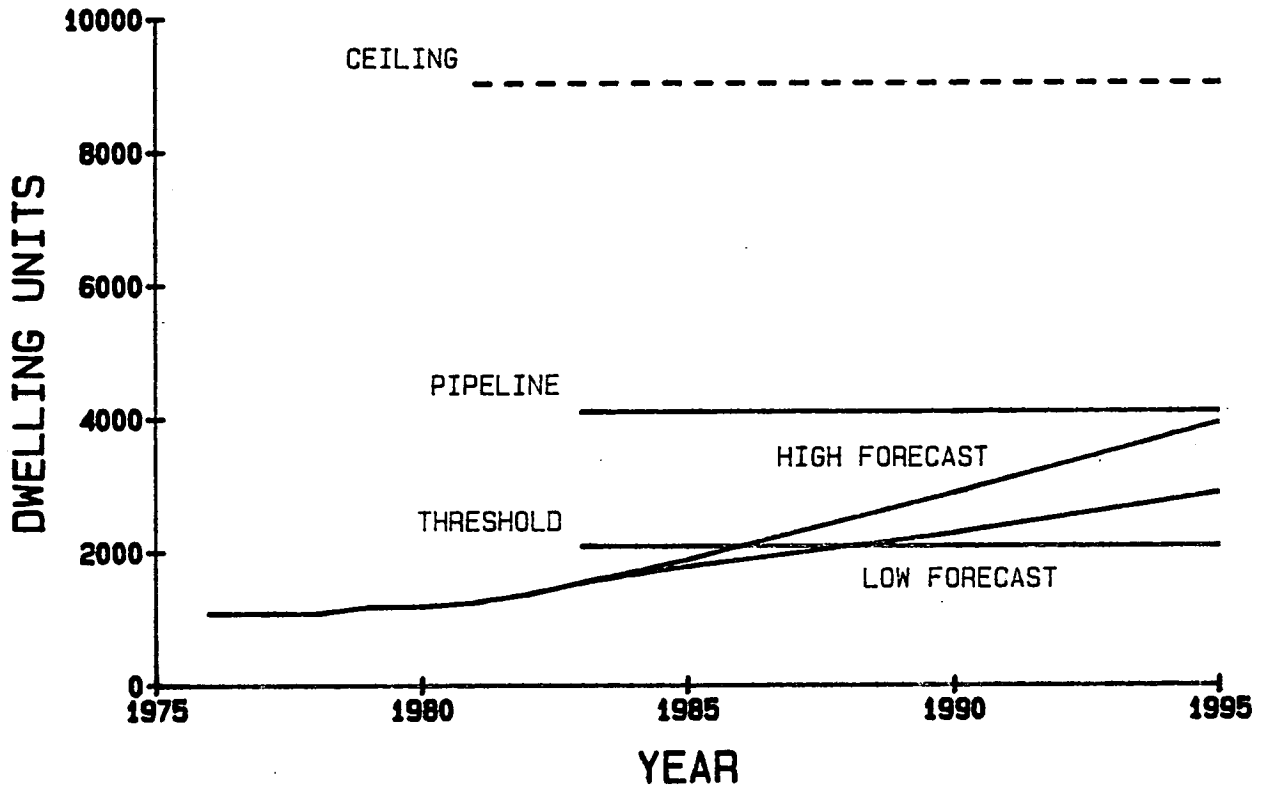
The sum of sewer authorizations and completions since 1977 exceeds the recommended threshold for residential development. One residential development satisfied the threshold deficiency by agreeing to set up and manage a personalized ride-sharing program large enough to eliminate a number of vehicular trips equal to the number of peak hour, peak direction trip generated by the development. Some additional threshold capacity is available for non-residential development. To accommodate a large number of already approved residential preliminary plans and additional non-residential developments, area roadway improvements should be considered.

Considerations for the Future

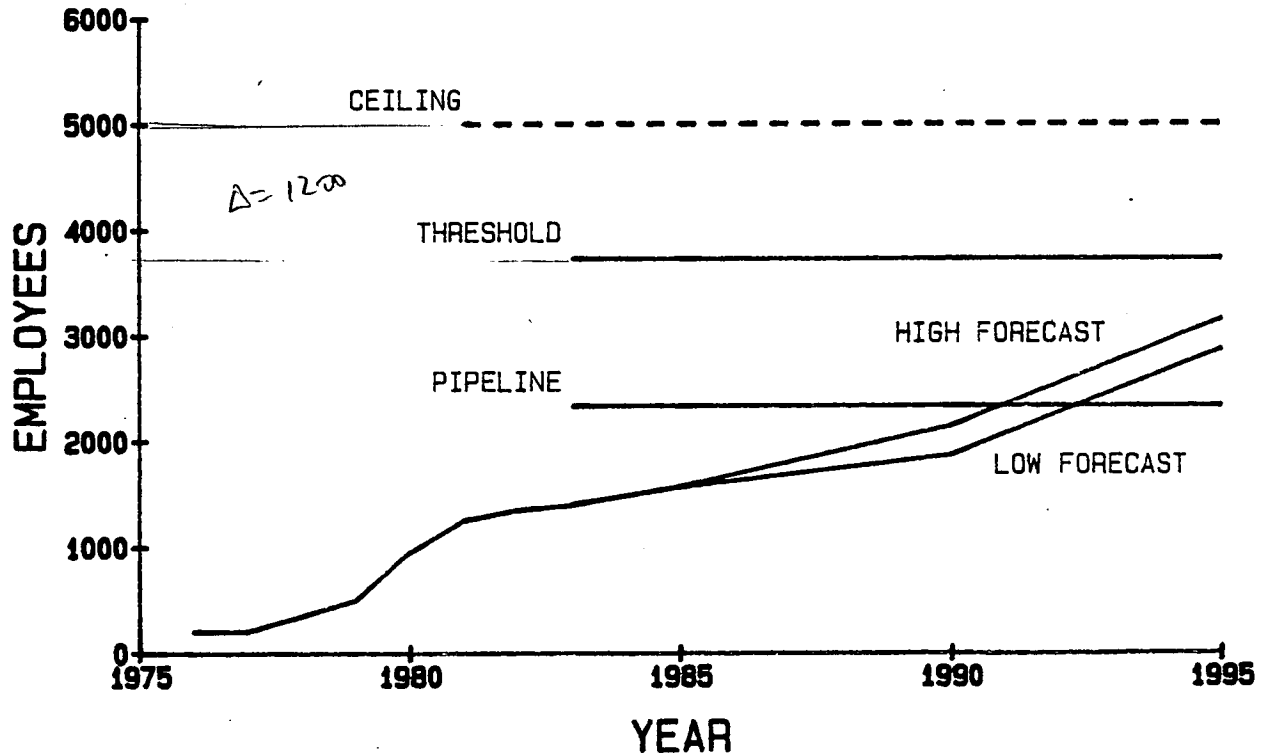
Areas of Local Congestion: As noted, there are intersection capacity problems at MD 355 and MD 27, and at MD 355 and Middlebrook Road. Improvements to the intersection of MD 355 and Middlebrook Road have been made as conditions of approval for several subdivisions approved in the area. Roadway improvements to MD 118 between I-270 and MD 355 have been required as a condition of preliminary plan approval for one parcel along MD 118.

Recommended Transportation Improvements: As new developments on the north side of MD 118 (Germantown Road) are reviewed, improvements to a segment of MD 355 (Frederick Avenue) north of MD 118 may be required to accommodate local growth. It is expected that the Project Planning Study for MD 118 may be programmed as part of next year's CIP and CTP. The limits of such a study should be from MD 117 (Clopper Road) to MD 355 (Frederick Avenue) in Germantown East. Such a study may produce a roadway project to serve the large industrially zoned tract of land on the north side of MD 118, east of I-270. MCDOT should consider a project to widen Middlebrook Road between Great Seneca Highway and MD 355 to be done in conjunction with the MdDOT project for the Middlebrook Road Interchange.

GERMANTOWN EAST POLICY AREA



CEILING= 7,900 / THRESHOLD= 1,000
PIPELINE= 3,025



CEILING= 4,700 / THRESHOLD= 3,500
PIPELINE= 2,192

CLOVERLY

Existing Conditions

Transit Availability: Transit service in the Cloverly area is provided only along New Hampshire Avenue. It is unlikely that additional route service can be supported with the relative low-density development existing throughout most of the area.

The critical roadway segment for this policy area is New Hampshire Avenue. This roadway is congested in the adjacent White Oak-Colesville Policy Area. North of the Colesville Shopping Center (Randolph Road), New Hampshire Avenue is only two lanes wide and the intersection operates at a Level of Service E. The 1981 average annual weekday traffic between Randolph Road and Notley Road was 23,800 and was approaching 20,000 between Notley Road and Good Hope Road.

Programmed Transportation Improvements

The CIP includes improvements to the intersection of New Hampshire Avenue at Notley Road. The reconstruction and relocation of the New Hampshire Avenue/Bonifant Road/Good Hope Road intersections remain as active projects in the CIP. A project is in the CIP for construction which will widen Randolph Road from New Hampshire Avenue to Fairland Road in the adjacent White Oak Policy Area. The County FY 85-89 CIP includes a developer participation project to improve the intersection of New Hampshire Avenue and East Randolph Road.

Thresholds and the Relationship to Planned Development

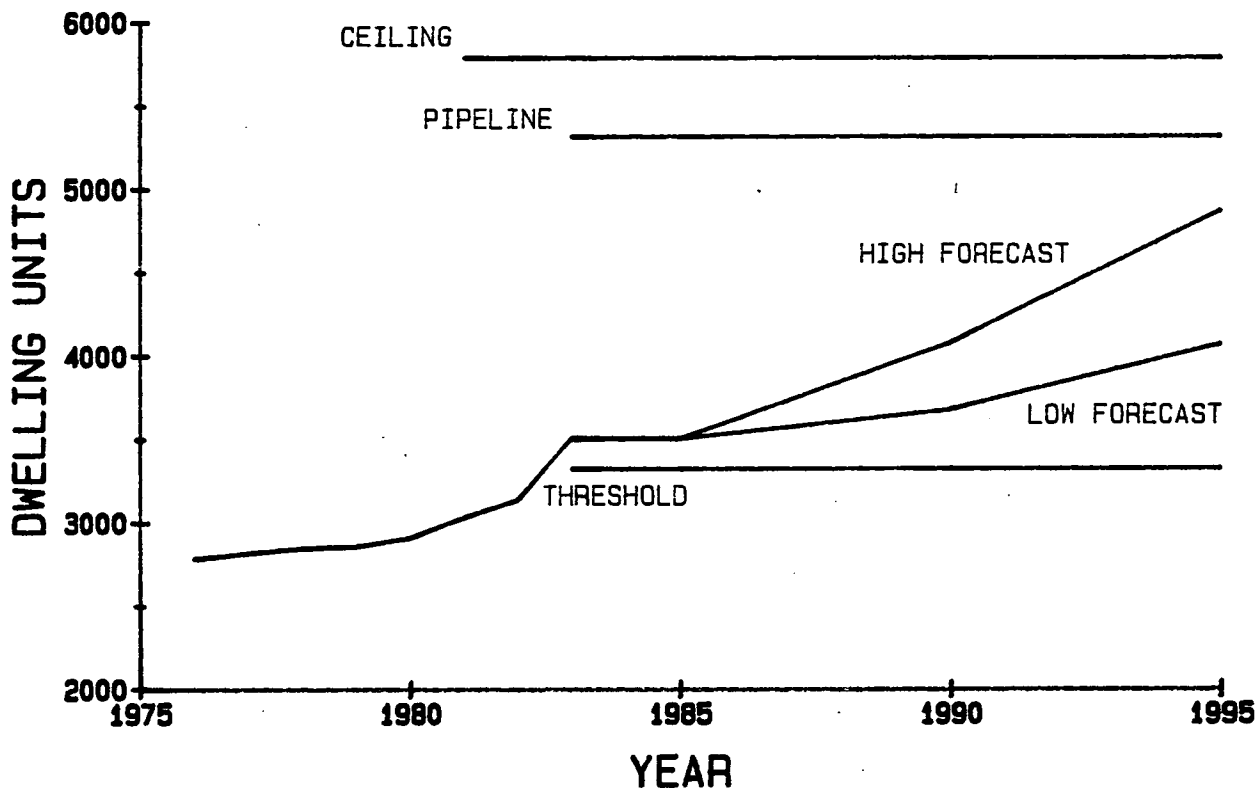
The residential threshold has been exceeded. However, limited employment threshold capacity still remains. The reconstruction of New Hampshire Avenue to four travel lanes north of Randolph Road will create the potential for the approval of additional dwelling units in the Cloverly area. The segment of New Hampshire Avenue from East Randolph Road to just north of Notley Road will be upgraded to four lanes to pass APF and to satisfy threshold. However, since the developers who are to make this improvement (no CIP project) will use the capacity created, this added capacity will not increase the threshold capacity.

Considerations for the Future

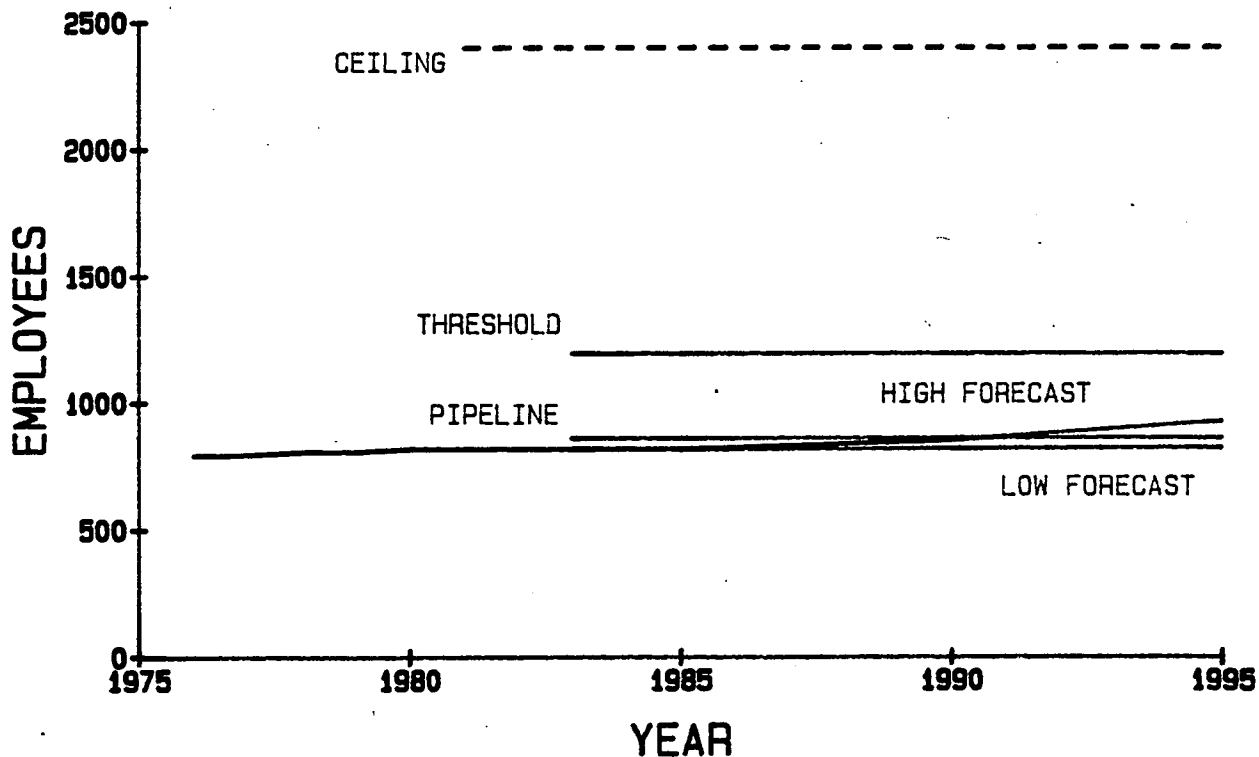
Areas of Local Congestion: As has been discussed, the area of local congestion includes New Hampshire Avenue from East Randolph Road to Bonifant Road.

Recommended Transportation Improvements: To reduce congestion and allow additional development to take place in the Cloverly area, New Hampshire Avenue north of Randolph Road will be widened by developers to four lanes from Randolph Road to Notley Road. To provide for additional development, New Hampshire Avenue from Notley Road should provide additional capacity to permit more development. MdDOT should initiate a Project Planning Study for such a widening. Given the limited possible alternatives that could be considered, the study would not be complex. In addition, MdDOT or MCDOT or both could provide commuter parking fringe lots convenient to New Hampshire Avenue bus service, possibly using excess space in existing private and church parking lots. The Board has recommended that MdDOT should construct the MD 28/MD198 Connector; this project may be included in next year's CIP and CTP.

CLOVERLY POLICY AREA



CEILING= 2,900 / THRESHOLD= 500
PIPELINE= 2,492



CEILING=1,600/THRESHOLD= 500
PIPELINE= 63

POTOMAC

Existing Conditions

Transit Availability: Potomac is currently served by the regional bus system on parts of Seven Locks Road, Falls Road, River Road, and Bradley Boulevard. With the opening of the Metrorail line to Shady Grove in December 1984, several MCDOT Ride-On bus routes will serve the Potomac area east of Falls Road. Fringe parking will continue to be available at Montgomery Mall.

Critical Intersections and Roadway Segments: The most severe congestion in the Potomac area occurs along Seven Locks Road along most of its length north of River Road. Some of the congestion will be decreased due to projects in the CIP.

Programmed Transportation Improvements

Projects in the CIP for this area include: (1) Montrose Road Extended, including intersection improvements at Seven Locks Road, (2) Democracy Boulevard Extended, and (3) the bridging of Fernwood Road over I-270. The first two are fully programmed for construction during the time frame of the current CIP; the Fernwood Road bridge is programmed for approximately 50 percent of the construction cost with the stipulation that 50 percent of the cost is to be funded by developers. At this time, one preliminary plan has been approved based upon the developer participating in this project. The interchange between Falls Road and I-270 is included in the 1984/89 CTP. This interchange is nearby in the Rockville area.

Also in nearby Rockville is the Ritchie Parkway project to extend Ritchie Parkway from its present terminus at Seven Locks Road to Rockville Pike. This project is funded by the city, County, state, and developers.

Oaklyn Drive Bridge, currently only one lane wide, is in the County CIP for Potomac reconstruction as a two-lane bridge. Oaklyn Drive will connect with the new arterial roadway to be built by the developer of the Avenel Farm project between existing Oaklyn Drive and the intersection of Bradley Boulevard and Persimmon Tree Lane. Existing Oaklyn Drive needs to be upgraded to carry the traffic that will use this new arterial route.

Thresholds and the Relationship to Planned Development

The Master Plan for the Potomac Subregion, adopted in 1980, specified retaining two-lane cross sections for most roads, even though congestion will occur. It further specified that when the extensions of Democracy Boulevard and Montrose Road are at least 50 percent programmed for construction, the remaining vacant land in the area can develop to the extent allowed by the then-proposed zoning. This will result in thresholds of approximately 6,300 dwelling units and 3,200 employees. The Plan notes that the full zoning development will result in traffic congestion in excess of standards for a Group II policy area.

Considerations for the Future

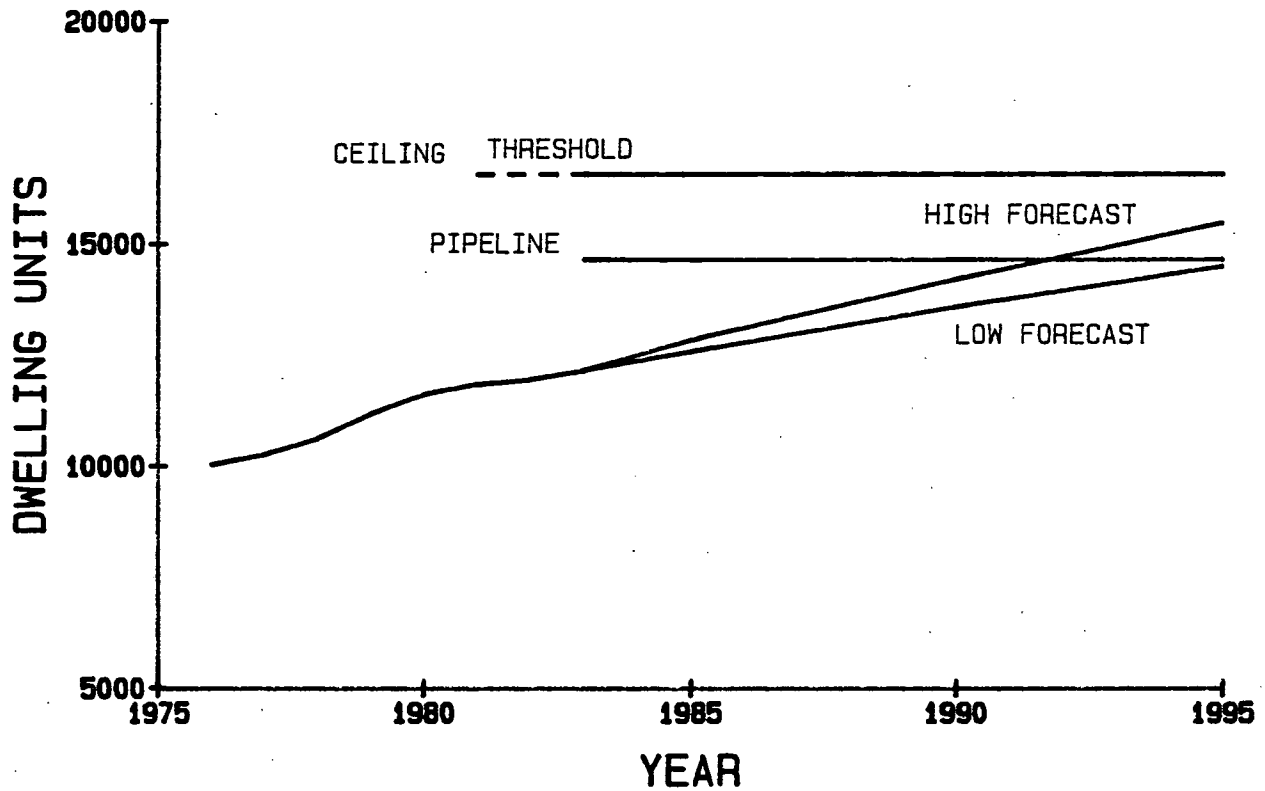
Areas of Local Congestion: In the "Potomac Policy Area" part of the Potomac Subregion Master Plan, local area congestion reviews will not be required. This is in accordance with the Master Plan which indicates that since the area is in effect a cul-de-sac with little through traffic, the Board will pursue a policy of maintaining two-lane roads, with two exceptions. The Board recognized that this will produce levels of traffic congestion during peak periods greater than that considered acceptable in other areas of the County, but feels that this is a legitimate trade-off in order to maintain the character of the area.

(The Planning Board is open to the suggestion that local area reviews be conducted in the eastern portion of Potomac along Seven Locks Road, which does not fit "cul-de-sac" characterization mentioned above.)

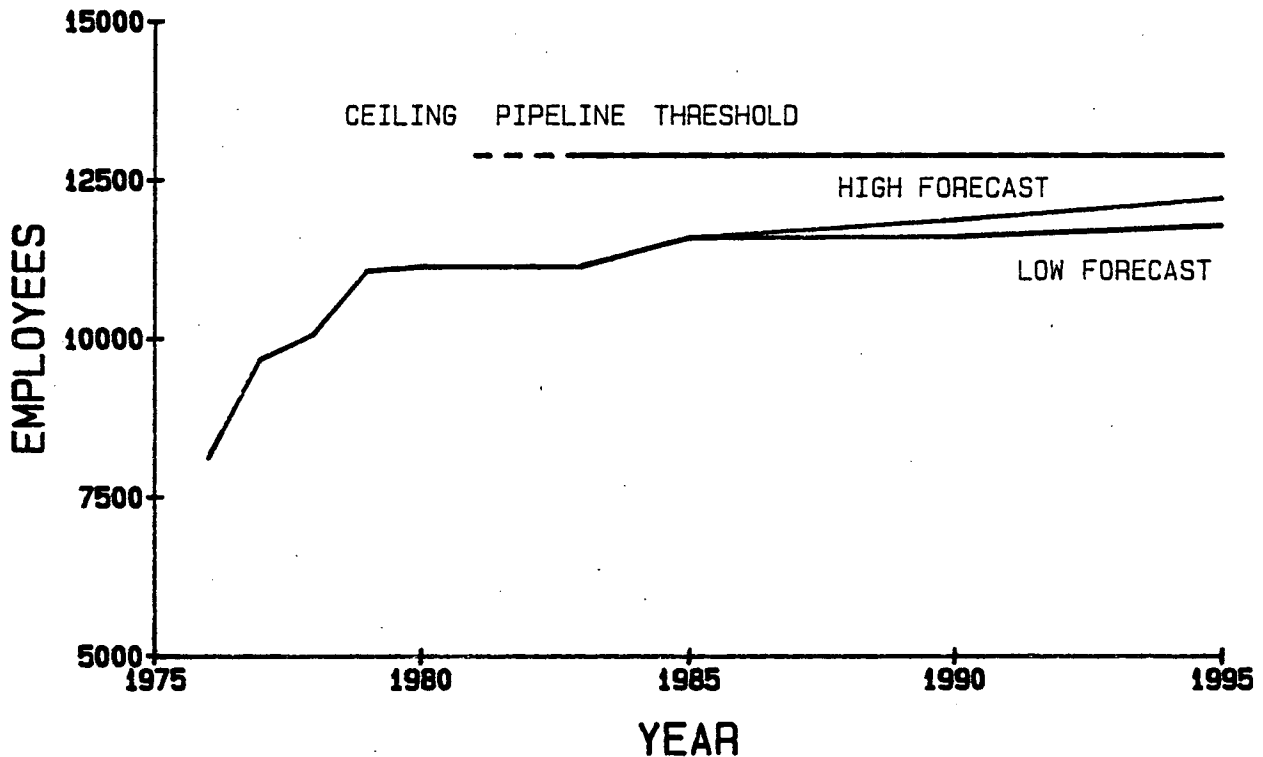
Recommended Transportation Improvements: The Potomac Master Plan recognizes that widening Seven Locks Road to four lanes from Tuckerman Lane to Montrose Road is a potential future improvement. The Transportation Planning staff has recommended to MCDOT that they should begin to program this project. The average annual weekday traffic on Seven Locks Road near Montrose Road is over 21,000, making it one of the most heavily travelled two-lane roads in the County. MdDOT is expected to include funding for the widening of I-270 between MD 121 and the I-270 Spur in its FY 85-90 CTP. MdDOT is expected to add Falls Road to their Development and Evaluation Program for project planning within a few years since the project is on the County's priority list.

CHART 5

POTOMAC POLICY AREA



CEILING= 6,300 / THRESHOLD= 6,300
PIPELINE= 4,369



CEILING= 3,200 / THRESHOLD= 3,200
PIPELINE= 3,200

FAIRLAND/WHITE OAK

Existing Conditions

Transit Availability: The area is currently served by regional bus service along US 29, New Hampshire Avenue, across Randolph Road, and along Old Columbia Pike. MCDOT Ride-On Community bus service is available in the West Hillandale area.

Critical Intersections and Roadway Segments: There are several critical roadway segments and intersections in the Fairland/White Oak area. Columbia Pike (US 29) is experiencing low peak-hour levels of service at Randolph Road, Industrial Parkway, and Stewart Lane. New Hampshire Avenue, in the vicinity of Hillandale, at Lockwood Drive, and at Randolph Road is also heavily congested because of high traffic volumes.

Programmed Transportation Improvements

The restructuring of bus service associated with the opening of Metrorail to Shady Grove has included additional Metrobus service out Old Columbia Pike to Burtonsville.

The pace at which developers are submitting preliminary subdivision plans for approval, and existing conditions along Columbia Pike and New Hampshire Avenue indicate the need for additional road capacity. The County CIP includes the widening of US 29 between Fairland Road and Greencastle Road as well as the section between Industrial Parkway and Randolph Road. Other projects are also included in the CIP. Developer participation projects include intersection improvements to New Hampshire Avenue at Lockwood Drive, the addition of two 12-foot traffic lanes on US 29 between Randolph Road and Fairland Road, and intersection improvements at Briggs Chaney Road and US 29, as well as development of a fringe parking lot and a private shuttle bus system to connect development with the Silver Spring Metro station. Other developer participation projects include the widening of US 29 through the intersection at MD 198 and intersection improvement at New Hampshire Avenue and East Randolph Road is in the County CIP with developer participation.

Thresholds and the Relationship to Planned Development

The residential threshold has been exceeded; some additional jobs are permitted, given the currently programmed improvements, recent development, and sewer authorizations. One residential development overcame the threshold deficiency by agreeing to set up and manage a personalized ride-sharing program for a large portion of this policy area. The thresholds were selected after careful consideration of their relationship to the traffic capacity of US 29. This road is a heavily used, primary state highway with a high proportion of its traffic volume originating from, and destined for, areas outside of Montgomery County, especially Howard County. The traffic impact of the total amount of new development permitted under the Eastern Montgomery County Master Plan is relatively less than the potential impact of the total amount of new development possible in Howard County, since Howard County controls its own planning and zoning. However, new development in Howard County has other alternative road routes in this general corridor, such as I-95, US 1, or the Baltimore-Washington Parkway. Also, the destination of traffic from new development in Howard County, which geographically links to Baltimore as well as Washington D.C., has a higher probability of being dispersed in other directions. The traffic from new development in eastern Montgomery County will tend to interact predominantly with the rest of the Washington metropolitan area.

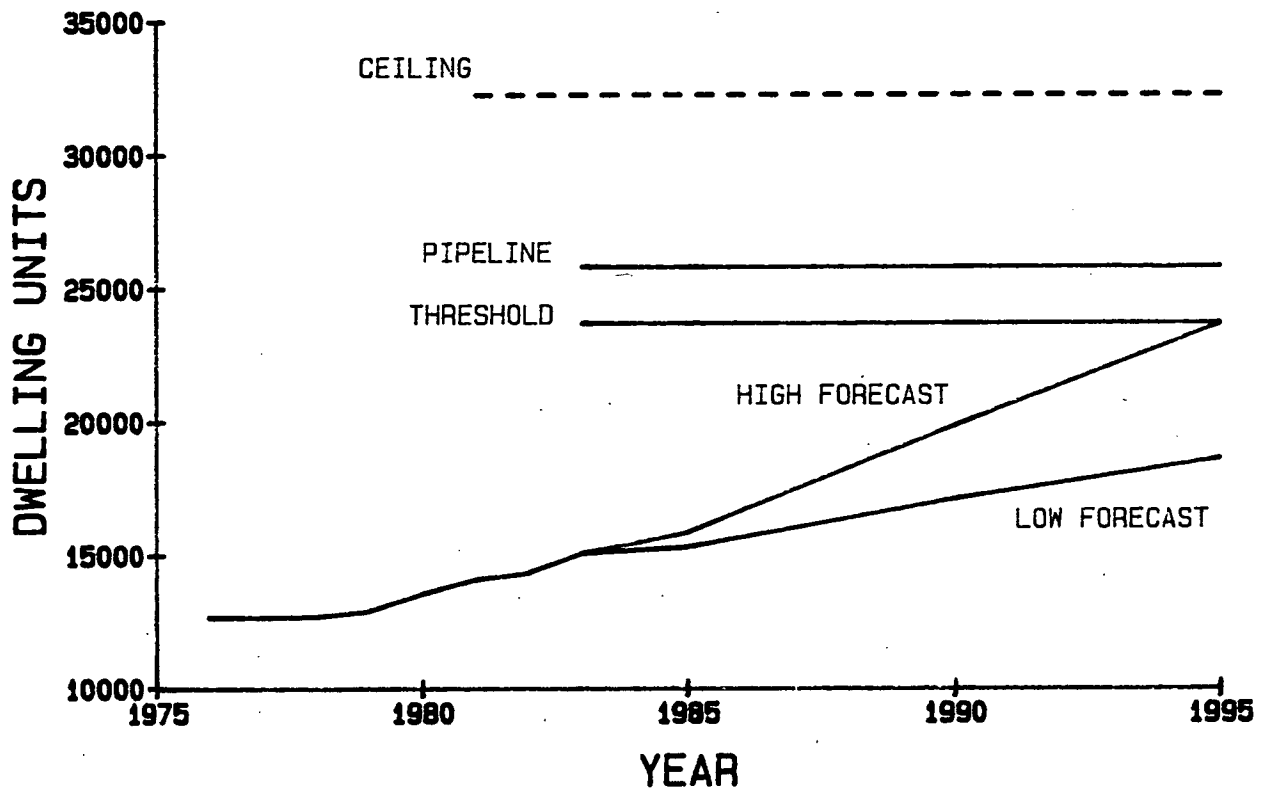
For these reasons, it seems proper to set level of service standards for this policy area that permit the development anticipated by the Eastern Montgomery Master Plan, so long as it does not excessively jeopardize the functioning of US 29 as a major transportation artery. The D/E level, which was used in establishing this threshold, is higher than desirable for the current level of transit service but it is acceptable because of three factors: 1) the through traffic built-up from Howard County may never actually reach this level, as noted above, 2) the Master Plan anticipates and encourages additional transit service along US 29, and 3) excess congestion can be monitored through the local area review process.

Considerations for the Future

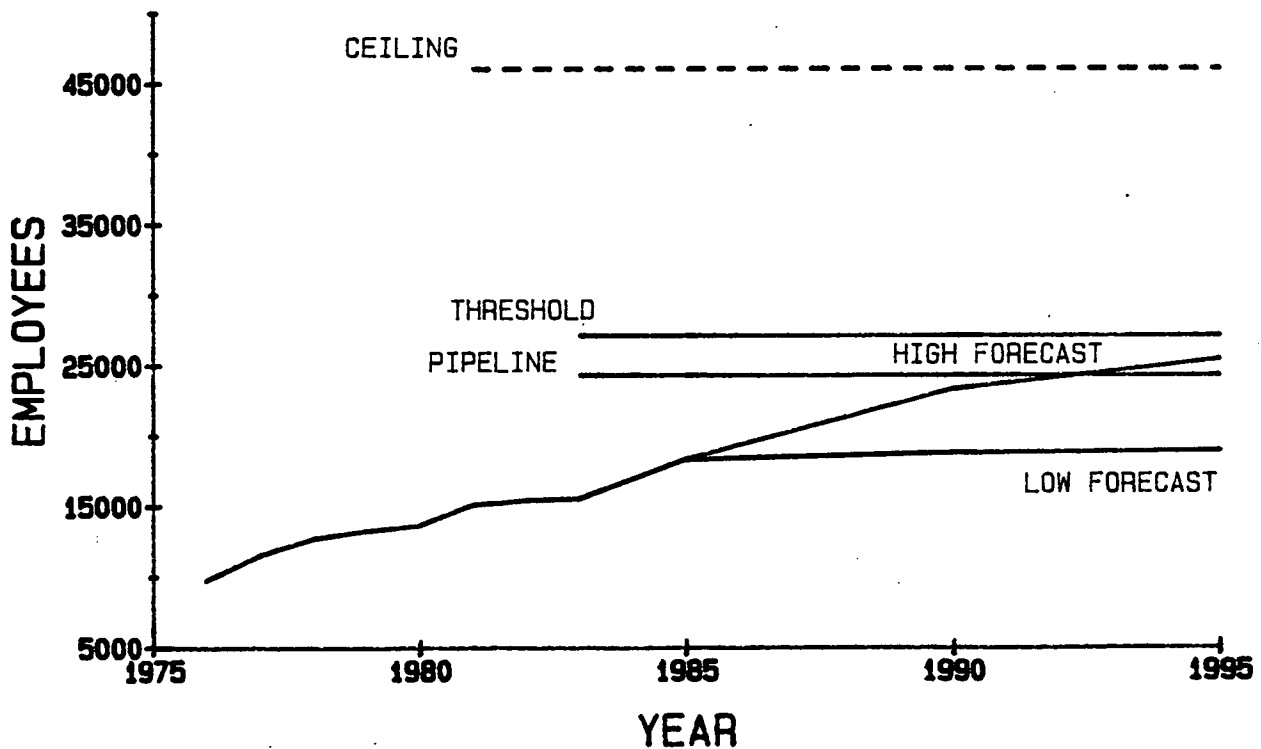
Areas of Local Congestion: As traffic continues to build up on US 29 due to growth outside the County, the area south of New Hampshire Avenue will potentially experience increased congestion, which will be monitored and controlled as noted.

Recommended Transportation Improvements: Subdivision activity has been greatly limited due to the threshold limit as well as local area congestion; this indicates a strong need for additional transportation capacity either by way of facility improvements or transit service or both. MCDOT should program some additional special projects for intersection improvements or lane widenings or both along US 29 (Columbia Pike). The MCDOT CIP includes a Project Planning Study for US 29 between the County line and the Beltway (I-495). Various alternatives are to be considered during this study including grade separations, jug handles, fly-overs, and queue jumpers to relieve intersection congestion. Consideration should also be given to the possible reopening of the Old Columbia Pike Bridge over Northwest Branch to motorized traffic and to the implementation of Commuter Fringe Parking Lots. MCDOT is continuing its preliminary project engineering study for the US 29 Corridor. This study should examine new transit services as a means of reducing congestion. MCDOT should also program further intersection improvements at Lockwood Drive and MD 650 (New Hampshire Avenue) to serve additional subdivision in that local area. Improvements to realign and relocate segments of Briggs Chaney Road should be programmed as recommended in the Eastern Montgomery County Master Plan.

FAIRLAND/WHITE OAK POLICY AREA



CEILING=19, 500 / THRESHOLD=11, 000
PIPELINE=13, 133



CEILING= 30, 000 / THRESHOLD= 15, 000
PIPELINE=12, 721

GAITHERSBURG

Existing Conditions

Transit Availability: Gaithersburg is currently served by private commuter bus, commuter rail, and a MCDOT Ride-On bus system. Service currently provided by Metrobus is a shuttle between the Shady Grove Metro station parking lot and the Grosvenor Metro station which opened in August 1984. Metrorail service is scheduled to be in operation to Shady Grove in December 1984. At that time there will be Metrobus feeder bus service and an expansion of the Ride-On system.

Critical Intersections and Roadway Segments: There are several intersections in the Gaithersburg area operating at or approaching Level of Service E. Such conditions can be found along MD 355, Shady Grove Road, MD 28 and the intersection at MDs 115 and 124. In addition, there are several roadway segments with existing inadequate capacity, such as parts of MD 28 and MD 355.

Existing conditions in several instances are worse today than they will be in the future. The programmed transportation improvement will alleviate some existing congestion in addition to providing capacity for the amount of development in the threshold. The proposed policy change to require a project to be 80 percent funded for construction to be considered as programmed results in that portion of Great Seneca Highway north of MD 124 (Quince Orchard Road) as no longer being considered as programmed.

Programmed Transportation Improvements

The Gaithersburg area has the largest number of programmed transportation improvement projects of any of the areas in the County, with more than twenty projects. The most recent CIP includes three new projects: (1) I-270 Connector between Great Seneca Highway and I-270, (2) Key West between Shady Grove Road and Gude Drive, and (3) Muddy Branch Road between MD 28 and MD 117. Airpark Road Extended was added to the CIP for planning purposes.

Thresholds and the Relationship to Planned Development

An Amendment to the Gaithersburg Vicinity Master Plan is under consideration. That Master Plan Amendment contains a staging element that will result in closer coordination between the construction of new development and the construction of the roadways needed to serve new development. The Montgomery County Council has given preliminary approval to the use of a staging concept. The staging concept under consideration would not change the requirements of the Local Area Review, but would defer the recordation of the approved preliminary plan until specified construction contracts were awarded.

The recommended thresholds for this area are 26,000 dwelling units and 47,500 employees. These thresholds do account for development within the city of Gaithersburg. Subtracting pipeline activity and growth since 1977, capacity exists for additional employees. Thresholds in the Gaithersburg area over those of last year would have been larger if the portion of Great Seneca Highway north of MD 124 (Quince Orchard Road) was still considered as being programmed for construction.

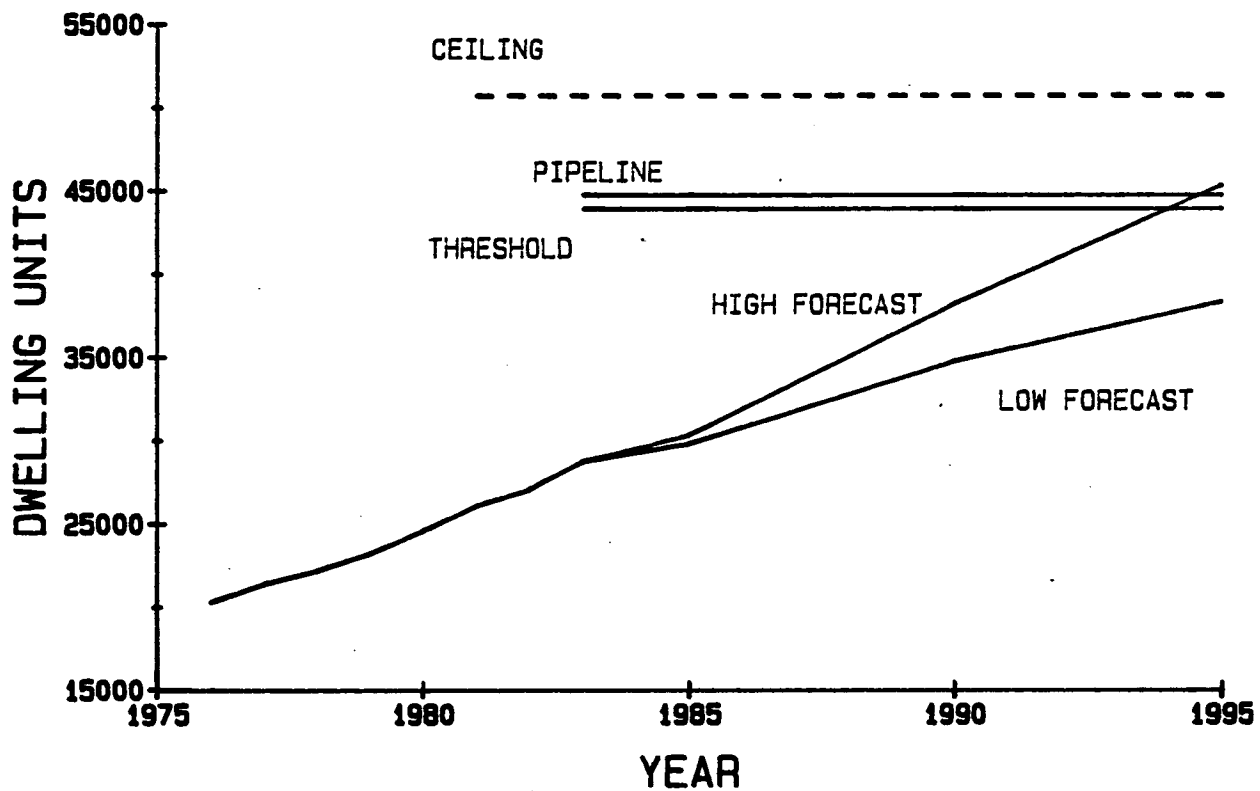
Considerations for the Future

Areas of Local Congestion: There are several locations within the Gaithersburg area for which local area transportation review will be required. Among these are: (1) the Shady Grove Road and I-270 interchange area, (2) Shady Grove Road east of I-270, (3) along MD 28 west of Rockville, (4) in the vicinity of the Montgomery Village Avenue/MD 355 intersection, (5) areas near the County Airpark and the MDs 115/124 intersection, and (6) areas in the vicinity of MD 355 and Gude Drive. Several preliminary plans were approved on the condition that they improve the intersection of MD 115, MD 124, and Snouffers School Road.

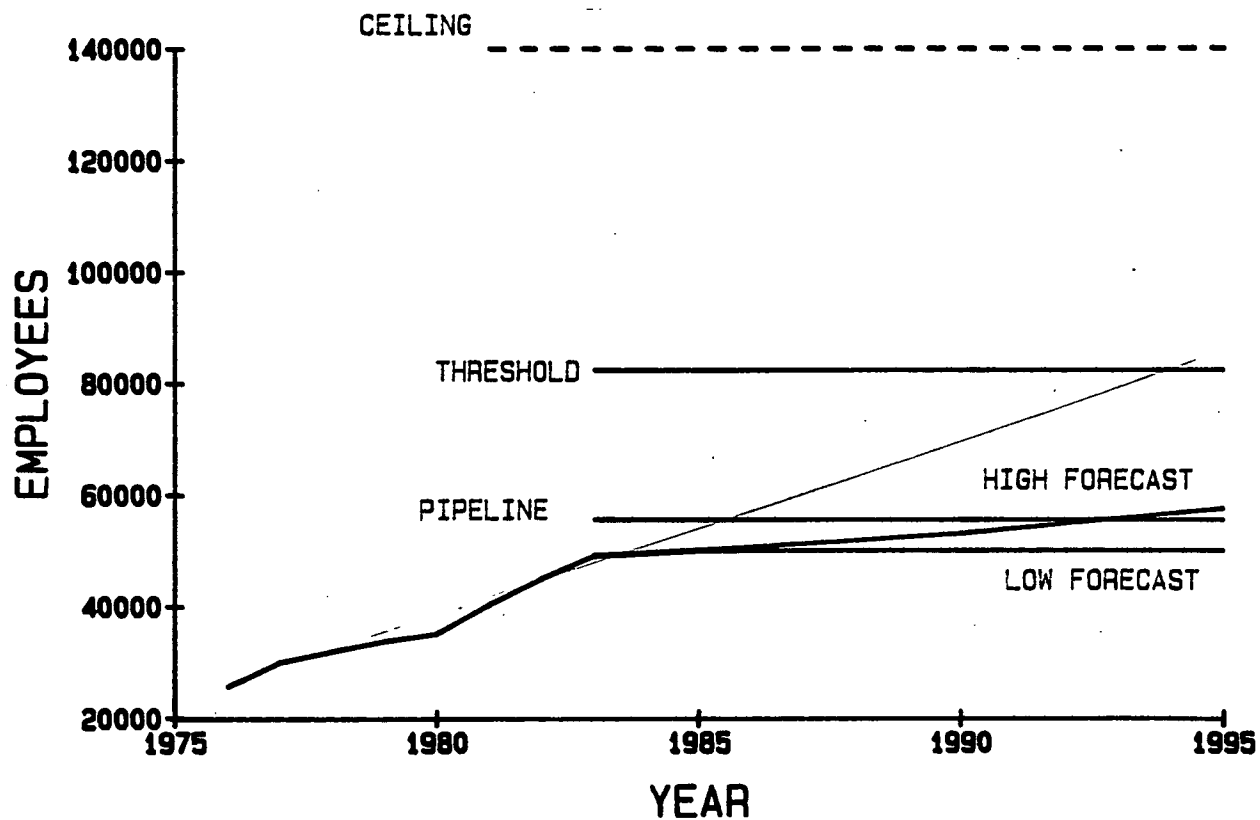
Recommended Transportation Improvements: A number of major projects are needed to provide additional capacity in this area. A high priority for project planning initiation by MdDOT is a study of MD 28 (Darnestown Road) Relocation. Existing congestion problems in that area have kept this as a high priority. The study has been one recommended for the past three years by the local elected officials for MdDOT to consider. We expect MdDOT to place this project into Project Planning this year. Other projects which would be desirable for MCDOT to implement include: (1) the widening of Middlebrook Road between Great Seneca Highway and MD 355, and (2) improvements to Snouffers School Road and later to Goshen Road. Airpark Road Extended needs to move forward and be funded for construction. The County is expected to include a new two-lane highway along the alignment of the planned ICC between Shady Grove Road and Georgia Avenue (MD 97) in next year's CIP. The Secretary of Transportation for the State of Maryland has decided upon Alternate G for this highway and SHA will be seeking location approval from the Federal Highway Administration. MdDOT should also program the upgrading of Clopper Road between MD 118 and Longdraft Road.

CHART 7

GAITHERSBURG POLICY AREA



CEILING=29, 300 /THRESHOLD=23, 000
PIPELINE=24, 354



CEILING=108, 200/THRESHOLD=50, 500
PIPELINE=25, 367

NORTH BETHESDA

Existing Conditions

Transit Availability: The North Bethesda area is well served by regional bus service, some MCDOT Ride-On service, commuter rail service from Garrett Park, two fringe park-n-ride lots, as well as express bus service to and from the Silver Spring Metro station via the Capital Beltway. Metrorail service began August 1984 at Grosvenor, will begin at White Flint and Twinbrook by the end of 1984, and will be augmented by a restructured bus system feeding the stations and their immediate vicinities.

Critical Intersections and Roadway Segments: There are many intersections in the North Bethesda area at or approaching Level of Service E. Such conditions can be found along Montrose and Randolph Roads, Rockville Pike, Old Georgetown Road, Democracy Boulevard, and Twinbrook Parkway.

Programmed Transportation Improvements

Some of these congestion conditions may be improved, either temporarily or over the long term, by the programmed transit and roadway improvement projects such as the extension of Tuckerman Lane (now open to traffic) and transit access projects in the vicinity of the White Flint Metro station which are complete. The relatively large number of projects in this area are intended to relieve existing problems, provide necessary access to the Metro stations, and to serve future development.

Construction funding for the Fernwood Road bridge over I-270 is set at approximately 50 percent in the CIP with the condition that developers provide the remaining 50 percent. Ritchie Parkway (in the adjacent city of Rockville) between Seven Locks Road and Rockville Pike is 100 percent funded for construction. The widening of East Jefferson Street between Montrose Road and Rollins Avenue is also a CIP project; this project also includes an improvement to the East Jefferson Street/Montrose Road intersection.

Thresholds and the Relationship to Planned Development

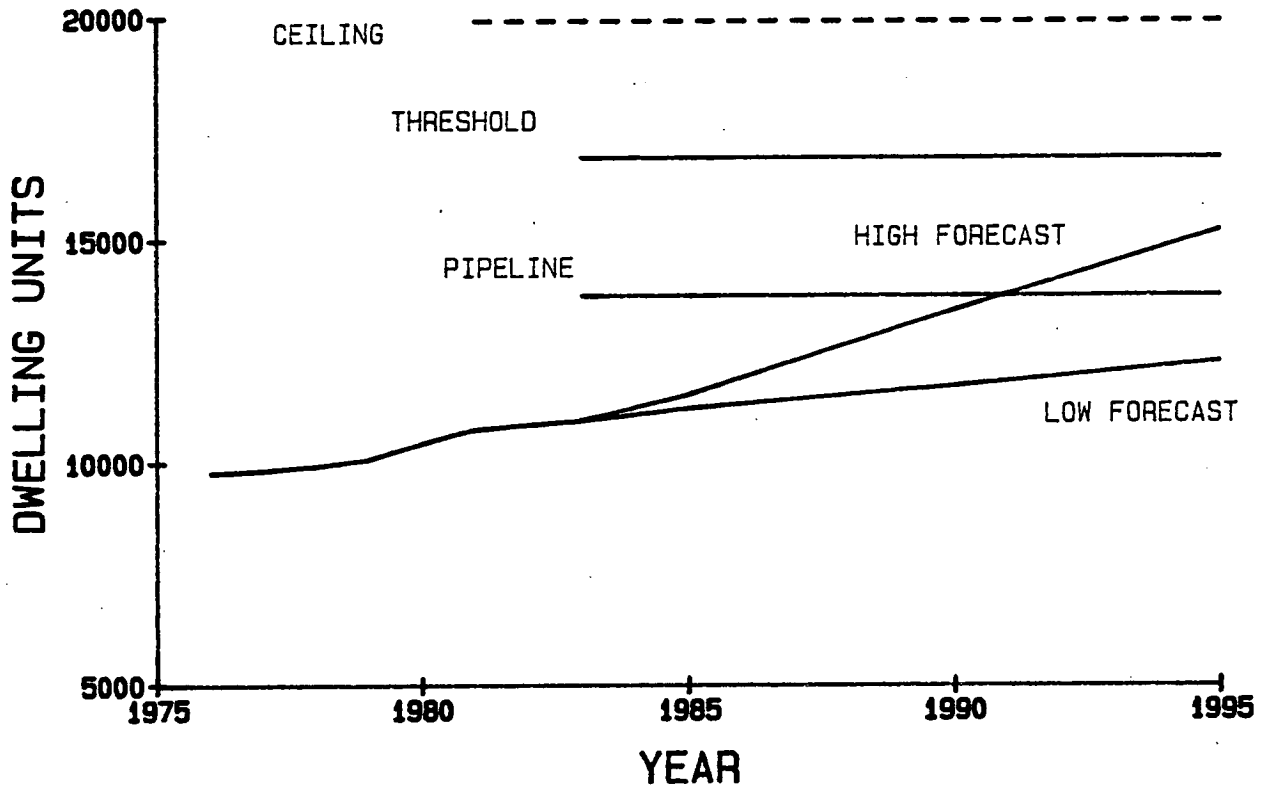
The recommended thresholds for this area are 7,000 dwelling units and 29,000 employees. The North Bethesda Policy Area contains only the planning area of North Bethesda/Garrett Park. The thresholds do not include development within the city of Rockville since the city has its own planning and zoning powers. The North Bethesda threshold (and all other thresholds) take into account that existing traffic and future traffic expected to be generated from development in Rockville.

Considerations for the Future

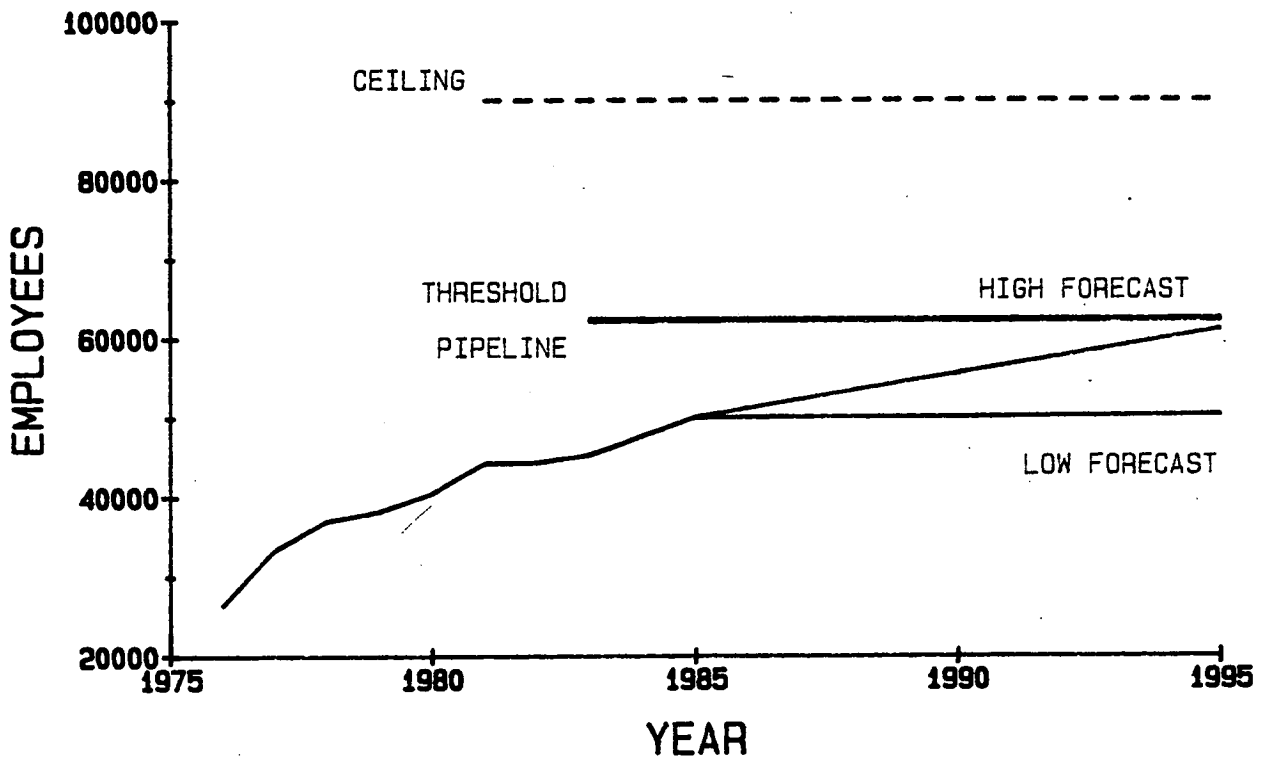
Areas of Local Congestion: There are several locations within the North Bethesda area for which local transportation reviews may be required. Among these are Davis Tract, Montrose Road/East Jefferson Street and Twinbrook Parkway locations. Several recent subdivision reviews in this policy area have required intersection improvements to pass the APFO requirements.

Recommended Transportation Improvements: A study by M-NCPPC to address possible uses of the Rockville Facility right-of-way may identify feasible transportation improvements which could further increase the threshold in this area. MdDOT decided to construct only the grade separations at MD 355/Montrose Road/Randolph Road and the railroad crossing portions of the Rockville Facility. Given the existing traffic problems in this area and the need for convenient access to Metro, such improvements should be given a relatively high priority from a County-wide perspective.

NORTH BETHESDA POLICY AREA



CEILING=10, 100 / THRESHOLD= 7, 000
PIPELINE= 3, 897



CEILING= 58, 900 / THRESHOLD= 29, 000
PIPELINE= 28, 704

y: This area is well served by regional bus service, several commuter rail service, a park-n-ride lot, as well as express bus Spring Metro station.

ns and Roadway Segments: There are several intersections in the at Level of Service E, and about a dozen at Level of Service D. ed conditions occur along Randolph Road, Georgia Avenue, rs Mill Road, and University Boulevard.

ion Improvements

projects which are fully programmed for construction in the a and some in the vicinity of the transit stations. Construction of rth of Silver Spring, has started and the Wheaton station is thin the timeframe of the CIP. The remaining construction and st Glen and Glenmont stations are not assured within this time. the upgrading and widening of Layhill Road (MD 182) to a four-ween Georgia Avenue (MD 97) and the Argyle Club Road.

ionship to Planned Development

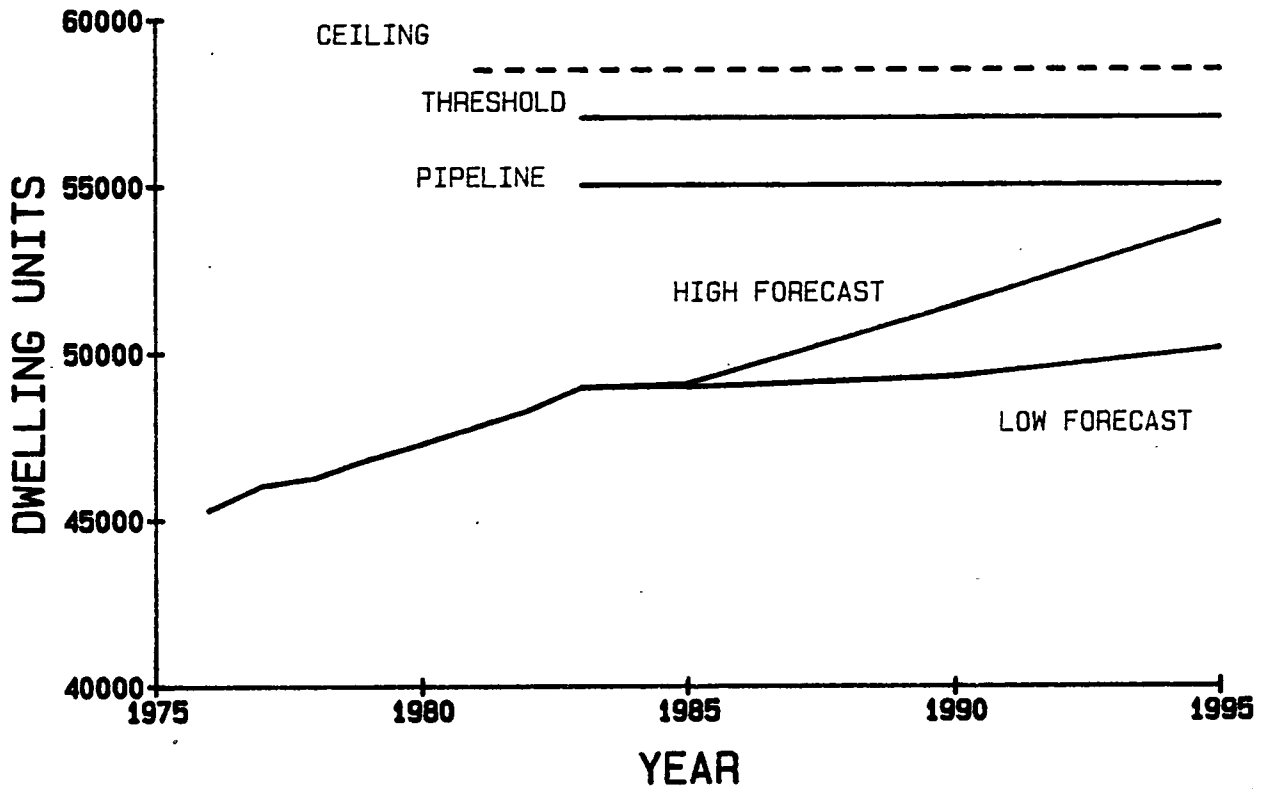
this area recommend 11,000 dwelling units and 10,000 employees. and growth since 1977 from the thresholds will permit additional yees. The change in the thresholds reflects the combined effects of Layhill Road, the Board's determination that only the Wheaton Line is programmed, and the effect of the nearby I-495 widening

uture

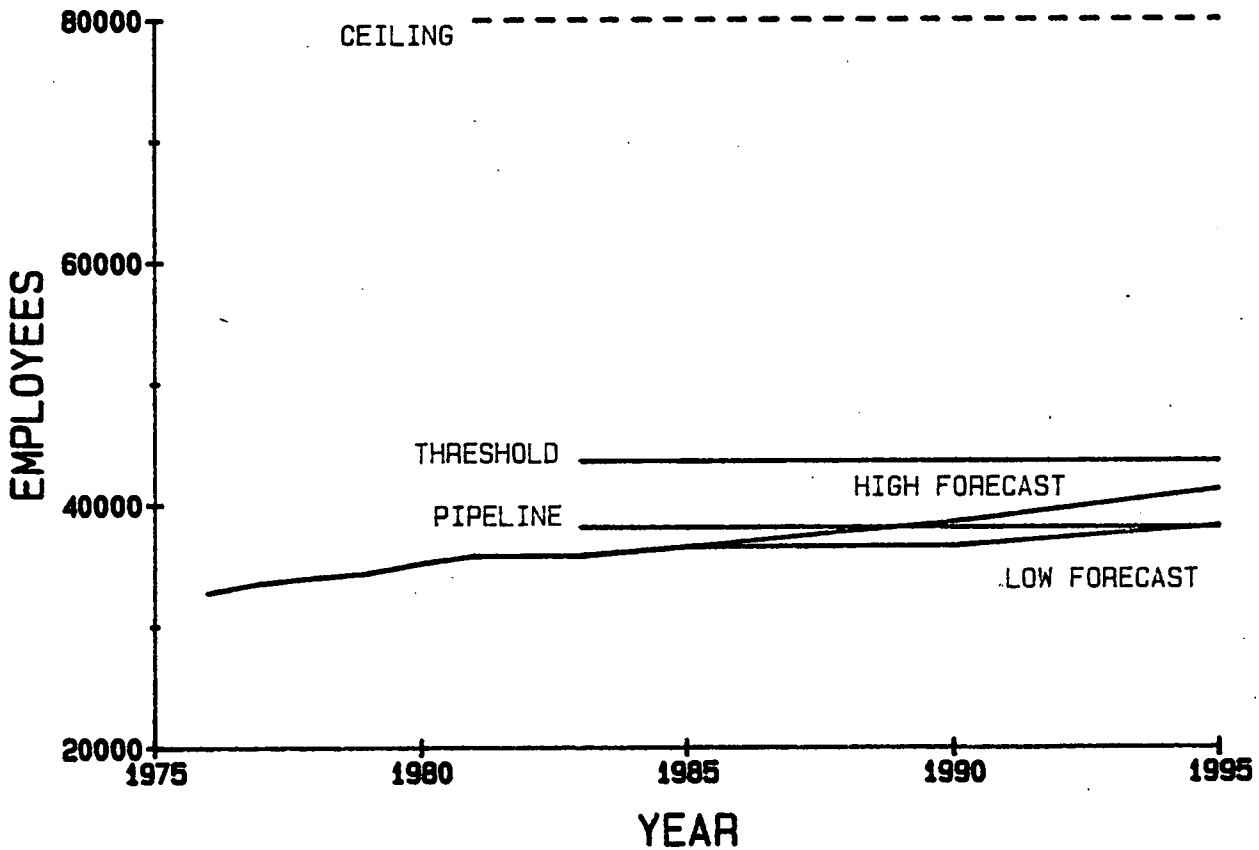
ongestion: There are several locations within the Kensington/ local area transportation reviews will be required. Among these District, Wheaton Central Business District, Glenmont Business eirs Mill Roads, Bel Pre Road and Georgia Avenue, and Georgia tions.

ansportation Improvements: The study by M-NCPPC for the of-way may identify feasible transportation improvements which hresholds in this area. In the Four Corners portion of this policy gram a special project to make traffic operation improvements at 29 (Colesville Road) and MD 193 (University Boulevard). Such e from the MdDOT project planning study for US 29. This location inue to be, one of the most heavily congested locations in the

KENSINGTON/WHEATON POLICY AREA



CEILING=12, 400/ THRESHOLD 11, 000
PIPELINE=8, 985



CEILING=47, 700 / THRESHOLD= 10, 000
PIPELINE= 4, 504

BETHESDA

Existing Conditions

Transit Availability: This area is served by regional bus service, limited Ride-On service and as of August 1984, Metrorail at the Friendship Heights, Bethesda, and Medical Center stations. The Bethesda CBD has its own Ride-On shuttle service. With the opening of the Metrorail line to Shady Grove in late 1984, the bus services will be restructured.

Critical Intersections and Roadway Segments: There are many intersections in the Bethesda area which are operating at or approaching Level of Service E. Such conditions are found along River Road, Old Georgetown Road, Wisconsin Avenue, and Connecticut Avenue.

Programmed Transportation Improvements

Some congestion conditions will be improved in the short-term, and possibly the long-term by the programmed transit and station access improvements. A personalized ridesharing program (patterned after the successful Share-A-Ride in Silver Spring) has been started for the Bethesda CBD.

The limited number of County road projects (such as Woodmont Avenue) in this area are intended to provide station access and facilitate local circulation within the CBDs of Friendship Heights and Bethesda. The approval of the optional method developments in the Bethesda CBD rely upon these roads for acceptable traffic conditions. MdDOT has programmed the widening of I-495 (Capital Beltway) to eight lanes between Wisconsin Avenue and Georgia Avenue. The Cabin John Bridge (I-495 over the Potomac River) is being widened, and that portion of I-495 between the bridge and River Road is in project planning for widening.

Thresholds and the Relationship to Planned Development

The recommended thresholds for this area are 6,000 dwelling units and 21,000 employees. Subtracting pipeline and growth since 1977 will allow the approval of additional dwelling units and employees. The Friendship Heights Sector Plan limits development within that area in absolute terms on a parcel-by-parcel basis. It does not recommend staging or threshold limits, and thus the thresholds do not change the amount or timing of development in Friendship Heights. The thresholds for the Bethesda Policy Area do not allow more growth than the recommendations in the Bethesda Sector Plan. (See Bethesda Sector Plan Extract in chapter V of this document.) Therefore, in the Bethesda Sector Plan area part of the Bethesda Policy Area, local area transportation reviews will not be required.

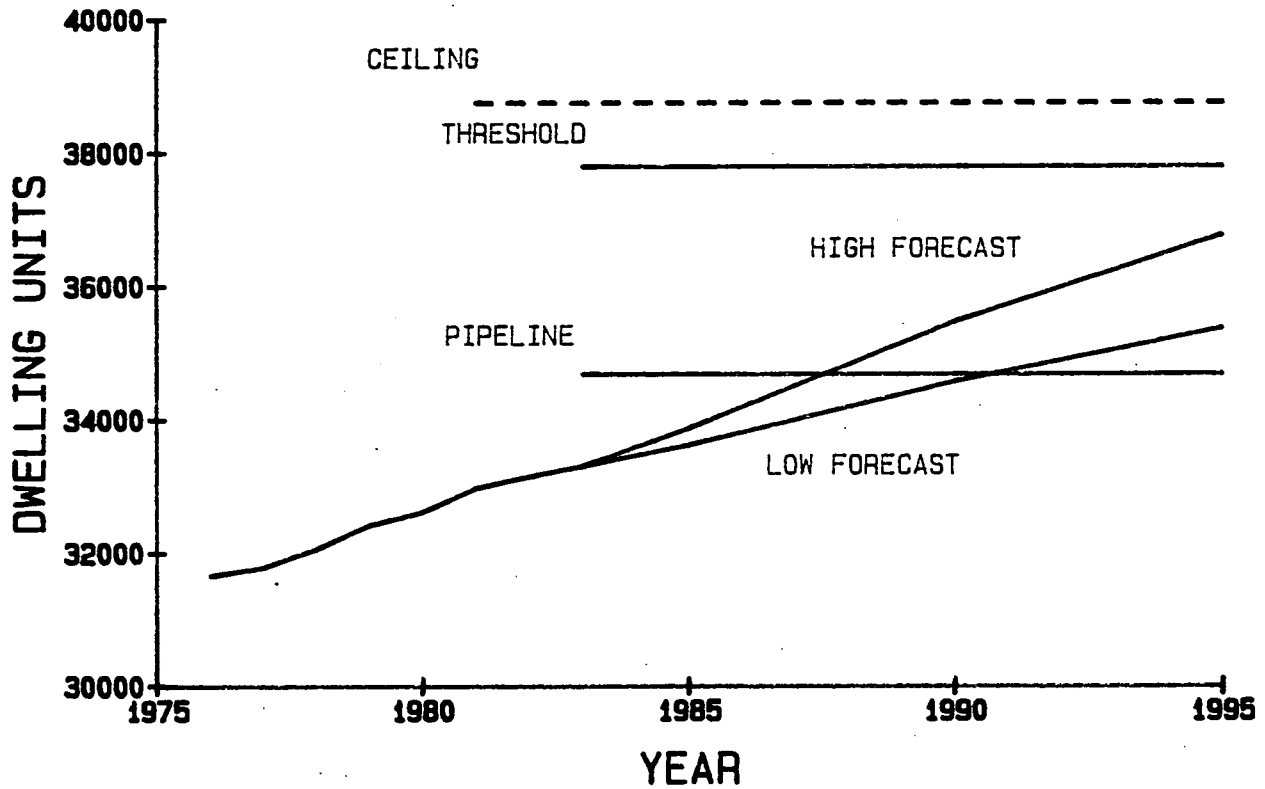
Considerations for the Future

Areas of Local Congestion: There are several locations within the Bethesda Policy Area for which local area transportation review will be required. Among these are Westbard, Chevy Chase Lake, and Friendship Heights locations.

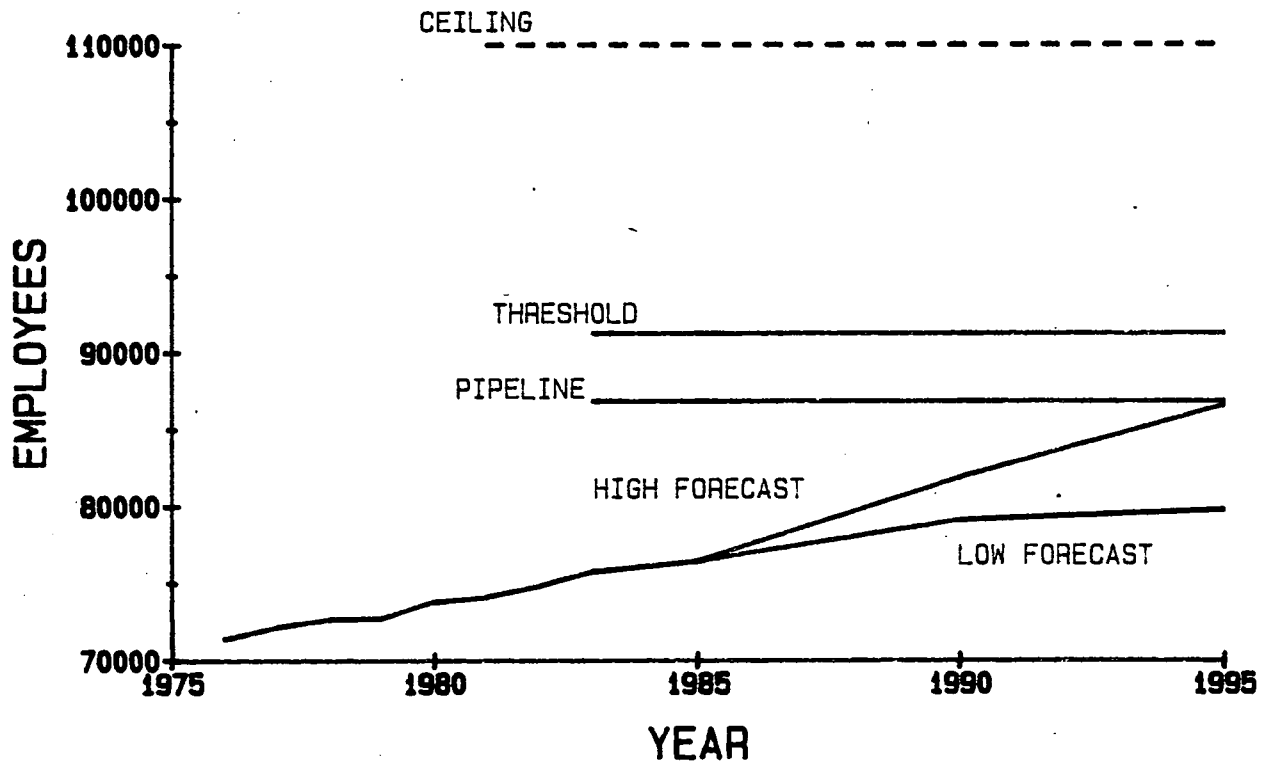
Recommended Transportation Improvements: There is the possibility of various local improvements being identified during Local Area Transportation Reviews and further work associated with refinements to master and sector plans in this area. MdDOT is expected to begin project planning for the I-270 Spurs (from I-495) next year, although technically with the North Bethesda Policy Area, mention here seems appropriate.

CHART 10

BETHESDA POLICY AREA



CEILING= 6, 900 / THRESHOLD= 6, 000
PIPELINE=2, 888



CEILING= 39, 700 / THRESHOLD= 21, 000
PIPELINE=14, 617

SILVER SPRING/TAKOMA PARK

Existing Conditions

Transit Availability: The Silver Spring/Takoma Park area has better transit availability than any other area in the County. The Metrorail stations at Silver Spring and Takoma Park are supported by an extensive feeder bus system. MCDOT's Ride-On buses also provide feeder service as well as community transit service. The area is also well served by regional bus and commuter rail service. The Silver Spring CBD also has the highly successful personalized ride-sharing program known as Share-a-Ride.

Critical Intersections and Roadway Segments: There are several intersections in this area that are operating at or approaching Level of Service E. Such conditions are found along East-West Highway, on Georgia Avenue in Montgomery Hills, along Colesville Road, and on University Boulevard.

Programmed Transportation Improvements

MdDOT has programmed the widening of I-495 (Capital Beltway) to eight lanes between Georgia Avenue and Wisconsin Avenue. Other transportation projects in this area are ones intended to facilitate local circulation within the Silver Spring CBD. Construction of the part of the Glenmont Line north of Silver Spring has been underway for sometime. The Board recently determined that only the Wheaton station should now be considered as programmed within the timeframe of the CIP.

Thresholds and the Relationship to Planned Development

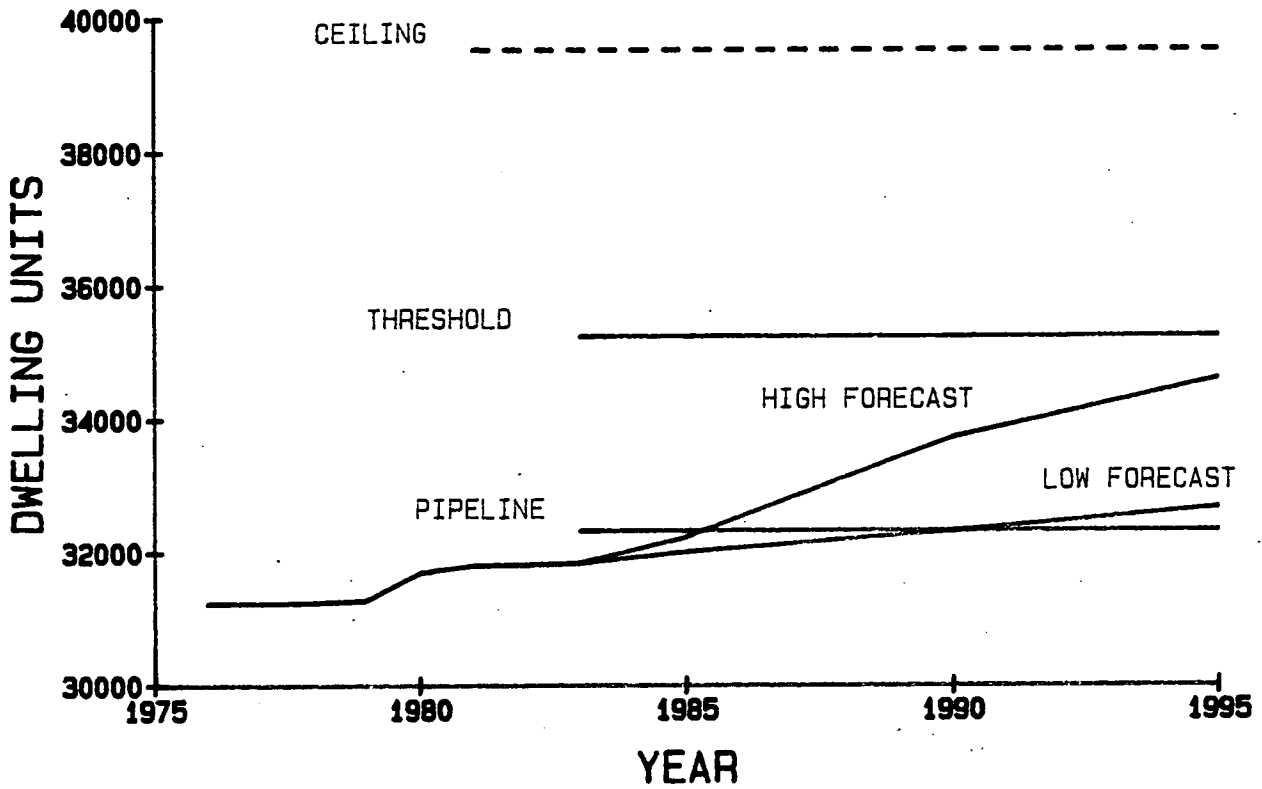
The recommended thresholds for this area have been reduced to 4,000 dwelling units and 14,000 employees, reflecting the Board's change in the program status of the Glenmont Line. Additional dwelling units and employees could receive subdivision approval. Silver Spring is the subject of a joint revitalization program sponsored by the County, the Planning Board, and local groups. Efforts are being undertaken to attract significant new development to the downtown Silver Spring area.

Considerations for the Future

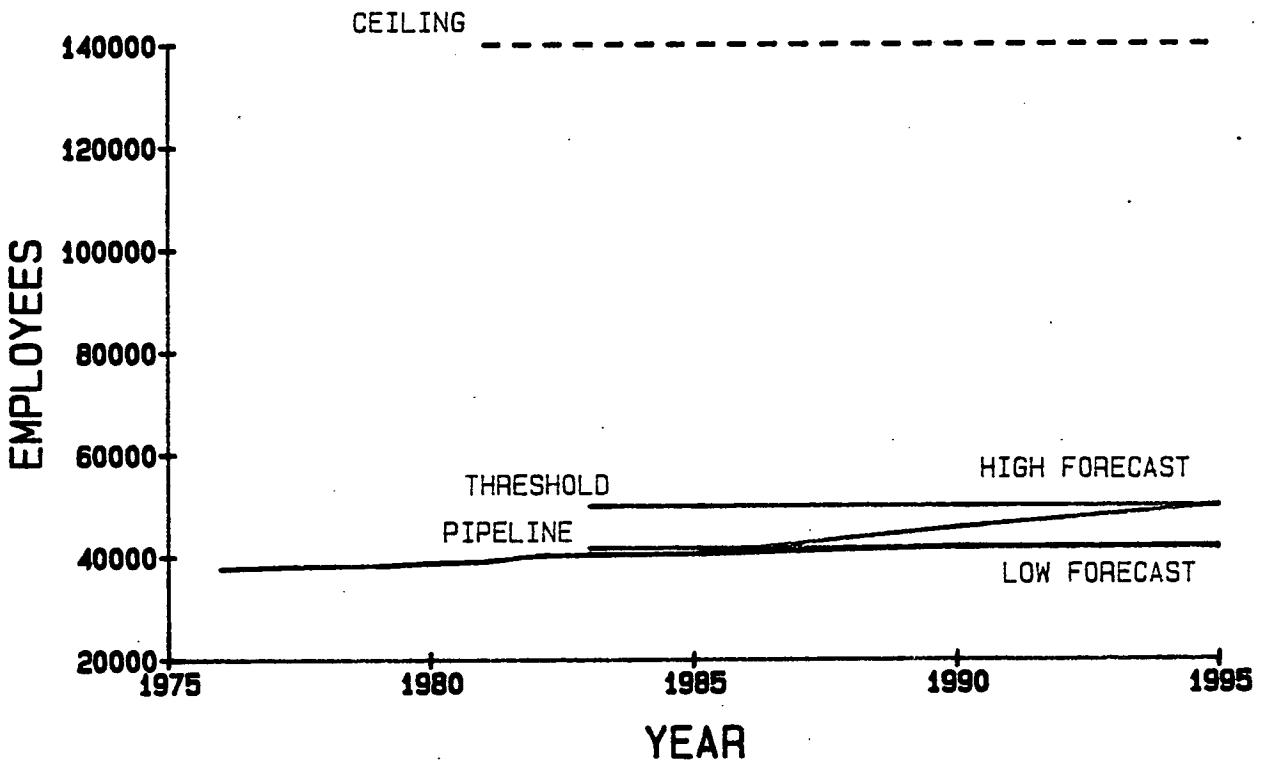
Areas of Local Congestion: There are few locations within the Silver Spring/Takoma Park area for which local area transportation reviews could be expected to be required. Among these are Montgomery Hills and possibly some portions of the CBD.

Recommended Transportation Improvements: There is the possibility of various local improvements being identified during the Local Area Transportation Reviews. In addition, improvements to the transit facilities serving Silver Spring are under study and such improvements could further reduce the potential for too much local congestion.

SILVER SPRING / TAKOMA PARK POLICY AREA



CEILING= 8, 300 / THRESHOLD= 4, 000
PIPELINE= 1, 084



CEILING= 104, 100 / THRESHOLD= 14, 000
PIPELINE=3, 554

TABLE 5

LISTING OF HIGHWAY PROJECTS BY POLICY AREA WHICH ARE AT LEAST EIGHTY PERCENT PROGRAMMED FOR CONSTRUCTION IN THE MONTGOMERY COUNTY FY 1985-90 CIP OR THE MDDOT FY 1984-89 CONSOLIDATED TRANSPORTATION PROGRAM

OLNEY

<u>Roadway Project</u>	<u>Limits</u>	<u>Implementing Agency</u>
Georgia Avenue (MD 97)	Norbeck Road (MD 28) to MD 108	County/State

GERMANTOWN WEST

<u>Roadway Project</u>	<u>Limits</u>	<u>Implementing Agency</u>
Great Seneca Highway ¹	Middlebrook Road to Darnestown Road (MD 28)	County
Bridge Replacement	Waring Station Road	County

GERMANTOWN EAST

<u>Roadway Project</u>	<u>Limits</u>	<u>Implementing Agency</u>
Intersection Improvement	Germantown Road (MD 118) at Frederick Ave. (MD 355)	County

CLOVERLY

<u>Roadway Project</u>	<u>Limits</u>	<u>Implementing Agency</u>
Bonifant Road	Layhill Road to New Hampshire Avenue	County
Good Hope Road Realignment	To New Hampshire Avenue and New Bonifant Road	County
Intersection Improvements	New Hampshire Avenue/ Norwood Road	County

POTOMAC

<u>Roadway Project</u>	<u>Limits</u>	<u>Implementing Agency</u>
Seven Locks Road Resurfacing and Realignment	MacArthur Boulevard to Lillystone Drive River Road to Dwight Drive	County

¹ This project is less than 80 percent funded for construction; when it was added to this list last year the construction funding was 50 percent.

TABLE 5 (Cont'd.)

POTOMAC (Cont'd.)

<u>Roadway Project</u>	<u>Limits</u>	<u>Implementing Agency</u>
Montrose Road Extended	Seven Locks Road to I-270	County
Democracy Boulevard Extended	Gainsborough Road to Kentsdale Drive	County

FAIRLAND/WHITE OAK

<u>Roadway Project</u>	<u>Limits</u>	<u>Implementing Agency</u>
Sandy Spring Road (MD 198)	US 29 to I-95	State
East Randolph/East Cherry Hill Road	US 29 to Prince Georges Line	County
Subdivision Participation	New Hampshire Avenue at Lockwood Drive	County/Developer
Columbia Pike (US 29)	Industrial Parkway to Greencastle Road	County/Developer
East Randolph Road	New Hampshire Avenue to Fairland Road	County

GAITHERSBURG

<u>Roadway Project</u>	<u>Limits</u>	<u>Implementing Agency</u>
Quince Orchard Road	Darnestown Road (MD 28) to Clopper Road	State/County/ Developer
Frederick Avenue (MD 355)	South Summit Avenue to Chestnut Street	State
I-270 Interchange	West Diamond Avenue (MD 117) to MD 124	State
I-370 Connection	I-270 to Great Seneca Highway	County
I-370 Metro Connection	I-270 to Shady Grove to Metro Station	State
Intersection Improvement	MD 28 and Muddy Branch Road	County
Crabbs Branch Way	County Service Park to south of Redland Road	County

TABLE 5 (Cont'd.)

GAITHERSBURG (Cont'd.)

<u>Roadway Project</u>	<u>Limits</u>	<u>Implementing Agency</u>
Midcounty Highway (formerly Eastern Arterial)	Montgomery Village Avenue to Shady Grove Road	County/Developer
Fields Road	Piccard Drive to MD 355	County
Fields Road	Muddy Branch Road to Omega Drive	County
Gaither Road	Shady Grove Road to Fields Road	County
Great Seneca Highway ²	Quince Orchard (MD 124) to Darnestown Road (MD 28)	County
Longdraft Road	Quince Orchard Road to Clopper Road	County
Omega Drive	Fields Road to Key West Avenue	County
Shady Grove Road	I-270 to Briardale Road	County
Shady Grove Road	MD 28 to I-270	County
Shady Grove Road Bridge & Interchange Improvements	at I-270	County/State
Key West Avenue/ MD 28	Shady Grove Road to Darnestown Road/Treworthy Road; widen MD 28 at Shady Grove Road and between Research Boulevard and I-270	County/State/ Developer
Muddy Branch Road	MD 28 to MD 117	County
Key West Avenue	Shady Grove Road to Gude Drive	County
Watkins Mill Road Bridge	at Whetstone Run	County/City
Clopper Road	Longdraft Road to Quince Orchard Road	Gaithersburg

2

The policy of 80 percent funding has changed the limits of this project from that of previous years.

TABLE 5 (Cont'd.)

GAITHERSBURG (Cont'd.)

<u>Roadway Project</u>	<u>Limits</u>	<u>Implementing Agency</u>
Russell Avenue	Watkins Mill Road to Montgomery Village Avenue	Gaithersburg
Centerway Road Extension	Snouffers School Road to Strawberry Knoll Road	County

NORTH BETHESDA

<u>Roadway Project</u>	<u>Limits</u>	<u>Implementing Agency</u>
Veirs Mill Road Bridge (MD 28)	MD 355 to Woodburg Avenue	State
First Street Extended	MD 355 to Veirs Mill Road	Rockville
Gude Drive Extension	MD 355 to Research Boulevard	Rockville/County
East Gude Drive	MD 355 to Southlawn Boulevard	County
Research Boulevard Connection	to Gude Drive	Rockville
Tuckerman Lane	Old Georgetown Road to MD 355 and Metro Station	County
Transit Access Projects	Several Projects near White Flint and Twinbrook	County
Ritchie Parkway	Seven Locks Road to MD 355	Rockville/County/State/Developer
Aspen Hill Road Extended	Veirs Mill Road to Twinbrook Parkway	County
East Jefferson Street	Montrose Road to Rollins Avenue	County

KENSINGTON/WHEATON

<u>Roadway Project</u>	<u>Limits</u>	<u>Implementing Agency</u>
Norbeck Road (MD 28)	Bauer Drive to Georgia Avenue	State
Bel Pre Road	Georgia Avenue to Layhill Road	County

TABLE 5 (Cont'd.)

KENSINGTON/WHEATON (Cont'd.)

<u>Roadway Project</u>	<u>Limits</u>	<u>Implementing Agency</u>
Layhill Road	MD 97 (Georgia Avenue) to Argyle Club Road	State
Transit Station Access Projects	Glenmont, Wheaton and Forest Glen Stations	County/State

BETHESDA

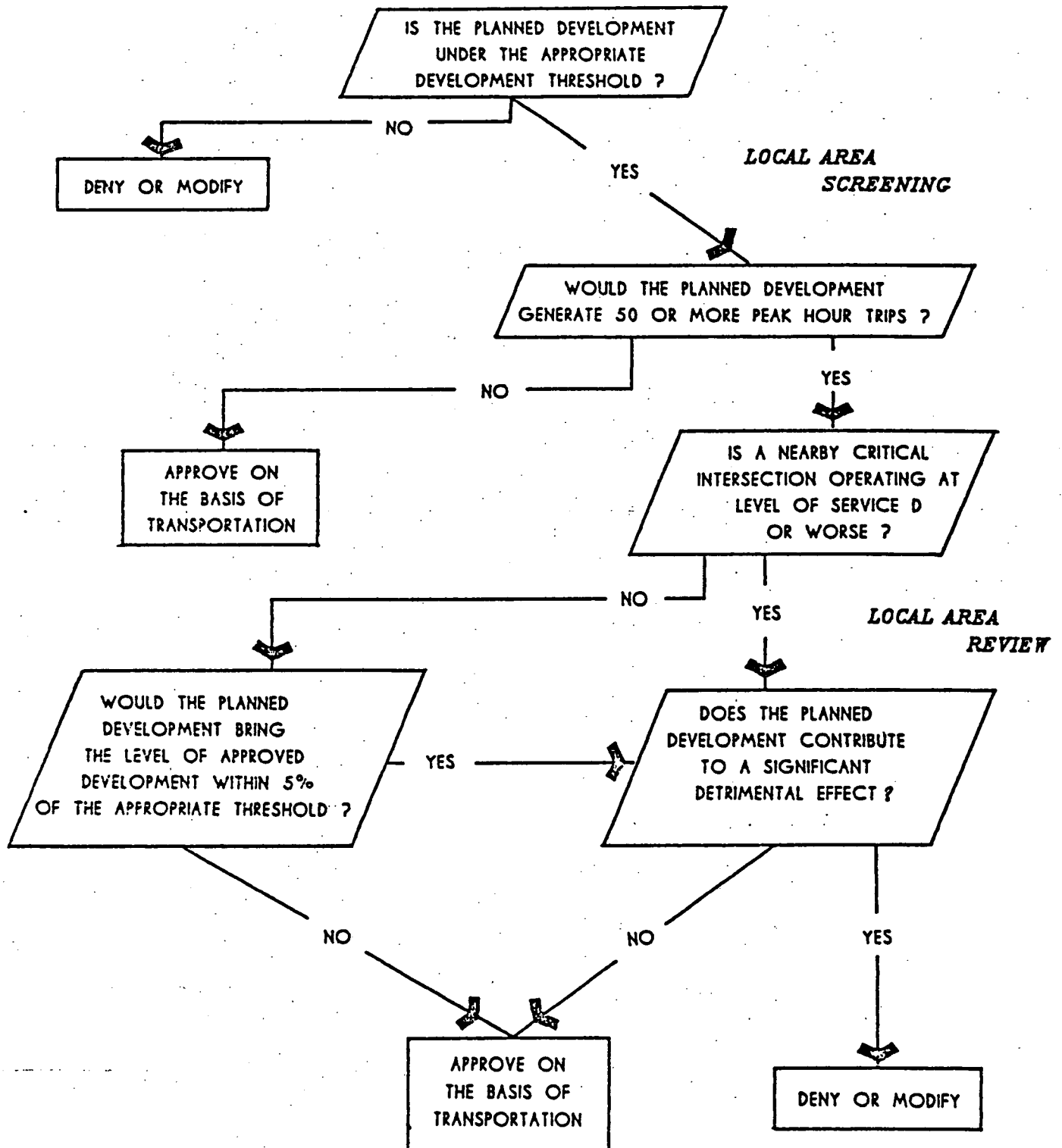
<u>Roadway Project</u>	<u>Limits</u>	<u>Implementing Agency</u>
East-West Highway Cupplet	Wisconsin Avenue (MD 355) to B & O Railroad	State
I-495 Capital Beltway	I-270 to MD 97	State
Transit Station Access and Business District Circulation Projects	Bethesda and Friendship Heights Stations	County

SILVER SPRING/TAKOMA PARK

<u>Roadway Project</u>	<u>Limits</u>	<u>Implementing Agency</u>
Roeder Road	Spring Street to Fenton Street	County
I-495 Capital Beltway	I-270 to MD 97	State

TABLE 6

STANDARD APPROVAL PROCEDURE FOR TRANSPORTATION ADEQUACY




LOCAL AREA TRANSPORTATION REVIEW

1. Introduction

The intent of these procedures in this guideline is to permit the Planning Board to withhold approval of an application, even though it would not exceed the threshold, if it is demonstrated that the development will produce excessive local traffic congestion which is likely to induce a significant detrimental effect on adjacent land use and which is unlikely to be relieved by alternative routes or modes of travel. It is equally important for the Planning Board to use these procedures to help it develop information which can be used to give guidance to the various Capital Improvement Programs of the implementing agencies.

2. Criteria for Screening Cases for Local Area Transportation Review

Planning staff will use the following criteria to determine whether the applicant needs to submit sufficient information and data on the proposed subdivision to carry out a Local Area Transportation Review. To the extent possible, this screening should be carried out prior to a formal subdivision application being submitted to the Development Review Division. It also could be done as part of a preliminary consideration by the Development Review Committee. If the development review staff determines by these screening criteria that a Local Area Transportation Review is necessary, the developer's application will not be considered complete until the appropriate information and data are submitted. There are three exceptions regarding conducting a Local Area Transportation Review:

- 
- 1) The "Bethesda Policy Area" development located within the Bethesda Sector Plan area will be reviewed in accordance with the recommendations of the staging element recommendations of the Bethesda Sector Plan, and
 - 2) The "Potomac Policy Area" part of the Potomac planning area will be reviewed in accordance with the adopted Master Plan for the Potomac Subregion.
 - 3) The "Gaithersburg Policy Area" development located within the Shady Grove West area, as defined in the Gaithersburg Vicinity Master Plan, will be reviewed in accordance with the staging plan contained in the master plan.

A Local Area Transportation Review is required if the combination of the conditions identified in the following paragraphs is A & B, A & C or all three:

- A. Significantly Sized Project: The proposed development is of sufficient size to have a measurable impact on a specific local area to be considered in a local review. This is taken to mean either a standard of fifty or more dwelling units in the proposed development or a non-residential development which would generate fifty or more peak hour trips according to the appropriate category in the Institute of Transportation Engineers Trip Generation Handbook. It is recognized that in the actual Local Area Transportation Review it could be determined that a trip generation value different from the handbook may be more appropriate. It is presumed that smaller sized subdivisions can only be considered in the area-wide aggregate review of the new overall procedures.

In determining whether or not a total of fifty or more dwelling units or trips are involved for the purpose of applying the requirements of Local Area Transportation Review, all land at one location within the County available for building development under common ownership or control by an applicant, including that land owned or controlled by separate corporations in which any stockholder (or family of the stockholder) owns ten percent or more of the stock, shall be included. An applicant shall not avoid the intent of this requirement by submitting piecemeal applications or approval requests for subdivision plats, site or development plans, or building permits. Any applicant may submit a preliminary subdivision plat for approval for less than fifty dwelling units or fifty peak hour trips at any one time provided such applicant must agree in writing that upon the next such application, or request, the applicant will comply with the requirements of Local Area Transportation Review when the total number of requests at one location has reached fifty or more dwelling units or fifty or more trips.

The phrase "at one location" means all adjacent land of the applicant, the property lines of which are contiguous or nearly contiguous at any point, or the property lines of which are separated only by a public or private street, road, highway or utility right-of-way or other public or private right-of-way at any point, or separated only by other land of the applicant, which separating land is not subject to the requirements of Local Area Transportation Review at the time of application for preliminary subdivision plat approval.

Plans for more than 50 dwelling units or 50 peak hour trips which cannot pass Local Area Transportation Review may be conditionally approved such that the development which may proceed to record plat will produce less than 50 dwelling units or 50 peak hour trips. When the applicant can demonstrate that the full plan, as submitted, including those lots which have been approved for recording, has adequate public facilities for all facilities, then the remainder of the preliminary plan will be able to obtain record plat approval.

- B. Nearby Congestion: The proposed development is located near roadways, intersections or sets of intersections which are already heavily congested. This is taken to mean a standard of having a critical intersection operating at Level of Service D or lower in the vicinity of the proposed development, or for the development to be located near a roadway segment already identified by the Planning Board for consideration by the State or County for widening and/or upgrading. The Transportation Planning Division is maintaining an Intersection Level of Service Inventory based upon traffic counts collected primarily by the MCDOT. The inventory gives the most congested level of service conditions for a one hour period either in the A.M. or P.M.. In addition, the SHA periodically conducts aerial surveys which develop estimates of level of service conditions along major state highways, as well as their interchanges or intersections. The Planning Board periodically gives recommendations to both the SHA and the MCDOT regarding specific segments of existing roadways in need of widening or upgrading, as well as roadways on new locations. The most recent set of Planning Board recommendations will be used in this screening process.
- C. Development Level Approaching the Threshold: When the proposed development is added to: (1) completions since the threshold base year; and (2) out-

standing sewer authorizations; and when the resulting total development is within 5 percent of the approved threshold for the area, this condition for a local area review is met. As an example, if the threshold for an area is 2,000 households, and if the sum of the housing completion, outstanding sewer authorizations, and the proposed subdivision is greater than 1,900, then this condition is met.

3. Findings for Inadequate Facilities

The Planning Board staff report will present findings for each of the categories identified below and give a recommendation relating to the adequacy of the transportation facilities. The Planning Board will use these findings to make its overall findings as to adequacy of public facilities for the proposed development.

- A. Transportation Solutions: Staff will identify the degree to which there are remedial transportation solutions to obtain adequate local transportation capacity. These solutions can include additional traffic engineering or operating changes beyond those currently programmed, major capital improvements beyond those currently programmed, or non-programmed transit or ridesharing activities which would make the overall transportation system adequate.
- B. Degree of Local Congestion: Staff will identify the degree of congestion forecasted for both A.M. and P.M. peak hours. Staff will present findings of the degree to which the forecasted traffic exceeds the maximum capacity of the nearby road system. The mid-point of Level of Service E is presumed the condition under which the transportation facilities as a total system are operating at maximum capacity. Critical Lane Volumes higher than the mid point of Level of Service E are deemed to reduce the overall efficiency of the road network. Because the experience of congestion is felt by road users and adjacent land uses before this level is reached, a judgement must be made in each case regarding the degree of detrimental impact that can be tolerated. The degree of local congestion will be considered to be more severe if both the A.M. and P.M. peak hour traffic conditions are beyond the mid point of Level of Service E.

If an applicant agrees to construct a roadway project or provide a transit program which would result in the operating conditions (as measured by critical lane volume) being better than the conditions that would occur without the applicants project, then local congestion will be considered less severe even though the calculated level of service does not meet the standard of acceptability.

- C. Unavoidable Congestion: Staff will identify the degree to which there are alternate routes or paths to serve the traffic associated with the proposed development. If there are no appropriate alternate routes for that traffic to use to avoid the congestion, then it must be assumed that traffic from the proposed development will increase the local area congestion. It is not appropriate to anticipate that the traffic associated with the development would use local streets unless those streets have been functionally classified as being suitable for handling that generated traffic.

- D. Transit Unavailability: Staff will identify the degree to which transit or ridesharing activities are not available to serve the proposed development. If it is physically or fiscally ineffective for the public agencies to provide transit or ridesharing services, then the local congestion, likely to be caused by the proposed development, cannot be significantly absorbed through this alternative mode of travel. If there is sufficient potential for serving the proposed development with transit or ridesharing services, then it is possible that a transit alternative could be developed for modifying the demand contributing to the severe congestion.
- E. Project Related Traffic: Staff will identify the degree to which the congestion problem is directly attributable to the proposed development. Traffic from three sources will be measured: (1) existing traffic, (2) traffic which would be generated by the sum total of all outstanding but unbuilt record plats,* (3) traffic from a previously approved preliminary plan that has not been recorded which was required to make a transportation improvement as a condition for approval when the same improvement is required by the proposed development, and (4) traffic which would be generated by the proposed development itself. The more that traffic from the proposed development contributes to the congestion problem, the greater the severity of the local impact.

4. Method and Preparation of Local Area Transportation Review

The following general criteria and analytical techniques are to be used by applicants in submitting sufficient information and data on a proposed subdivision to demonstrate the expected impact on and use of public roadways by the residents or occupants of said subdivision. In addition to the consideration of existing traffic associated with present development, the applicant shall include in the analysis potential traffic which will be generated by his subdivision and other "nearby" recorded lots to be included in the analysis. Information and data on the other "nearby" recorded lots will be supplied to the applicant during the initial review at the Subdivision Review Committee meeting. At this or at a subsequent meeting with transportation staff, the following aspects of the traffic impact analysis will also be agreed upon:

- 1) which intersections are to be included in the traffic impact analysis;
- 2) adequacy of available turning movement counts and need for additional data;
- 3) period of analysis (A.M. or P.M. or both);
- 4) trip generation rates, especially for commercial development;
- 5) directional distribution of site-generated and platted traffic;
- 6) mode split assumptions;
- 7) programmed projects to be considered in the analysis, along with techniques for estimating traffic diversion to major new programmed facilities;
- 8) link adequacy and trends in traffic growth; and
- 9) feasible range of traffic engineering improvements associated with implementing the development.

* Note that the Local Area Review counts Record Plats rather than Sewer Authorizations. This is due to cost and difficulty of securing sewer authorization data on a weekly basis from the WSSC. A development will be considered recorded from the date the Planning Board approves a preliminary plan for recording. Staff will consider, as a judgmental factor, the relative relationship between plats and authorizations as of the last previously recorded comparison.

- A. Trip Generation: Trip generation rates for residential development are shown in the accompanying table. Rates for other land uses or zoning classifications can be obtained from sources such as recent compilations assembled by The Institute of Transportation Engineers and will be provided by the Transportation Planning Staff of the Planning Board. Generated trips for development of mixed land uses will be determined by combining the trips generated by each of the component uses in the mix. Where it can be demonstrated that peak hours for different land uses occur at different times, the single hour that results in the highest total volume on the street system will be controlling.

Housing Type	Zoning Categories	TRIP Generation Rates
High-Rise Apt.	RH, R-10	5 to 7 trips/day/dwelling unit
Townhouses	RT	6 to 8 trips/day/dwelling unit
Garden Apt.	R-20, R-30	6 to 8 trips/day/dwelling unit
Single-Family	All other residential classes	8 to 10 trips/day/dwelling unit

- B. Peak Hour Percent: A peak hour percent of 10 percent of the daily trips will be assumed for residential development. For other uses, information from other accepted sources such as the Institute of Transportation Engineers (ITE) publications will be utilized as agreed upon by the staff and applicant.
- C. Peak Hour: The applicants shall use the peak one hour period which occurs during either the 7-9 A.M. or 4-6 P.M. periods or both, as agreed to by the staff and applicant.
- D. Trip Distribution: The directional distribution of the generated trips entering and leaving the proposed subdivision via all access points must be justified by the relative locations of other traffic generators (i.e., employment centers, commercial centers, regional or area shopping centers, transportation terminals, etc., and/or the trip table information provided by staff). These same factors or other factors provided by the Subdivision Review Committee shall be applied to the development under study as well as to other "nearby" subdivision plans in their analyses.
- E. Directional Split: Trips generated by residential uses will be assumed to have 60-70 percent leaving and 30-40 percent entering the proposed subdivision during the morning peak and 60-70 percent entering and 30-40 percent leaving the proposed subdivision in the evening peak. The split for traffic associated with other land uses is to be derived from ITE published information or other accepted studies, as determined by the transportation planning staff and the applicant.
- F. Trip Assignment: The distribution factors shall be applied to the generated trips and the resulting traffic volumes assigned to the road network providing

access to the proposed subdivision plus existing and "nearby" future traffic to determine the impact on the adequacy of the transportation facilities. The assignment is to be extended to the nearest major intersection, or intersections, as determined by the Subdivision Review Committee and can include an evaluation of the impact of generated traffic on existing links.

- G. Critical Lane Analysis: At the identified major intersection, or each such intersection, the existing and generated traffic is to be related to the adequacy of the intersection by using the "Critical Lane Volume" technique (see Section J) which shall be updated to maintain consistency with the Highway Capacity Manual revisions. Link volume analysis shall also be related to Highway Capacity Manual standards. The analysis should be carried out for both the A.M. and the P.M. peaks and should use traffic data for non-holiday weekdays. If so desired, alternate capacity and level of service analysis techniques can be used to develop supplemental information.

H. Traffic Data:

1. Traffic volume data is available from either the Maryland Department of Transportation or the Montgomery County Department of Transportation.
2. Data should be adjusted to the current year or new counts should be made by the applicant if, in the opinion of staff, traffic volumes have increased due to some change in the traffic pattern, such as the completion of a development project after the count was made.
3. If turning movement data is older than three years, or if there are locations for which data is non-existent, data must be acquired by the applicants using their own resources. This is in accordance with the Ordinance and part of the applicant's submission of sufficient information and data, consistent with the decisions reached by the Subdivision Review Committee and Transportation Planning Staff.
4. Intersection traffic counts conducted by the applicant must be manual turning movement counts covering the periods of 7-9 A.M. and 4-6 P.M. so as to allow selection of the peak hour within the nearest thirty minutes (e.g., 4:00-5:00, 4:30-5:30, or 5:00-6:00). Inclusion of all 7-9 A.M. and 4-6 P.M. turning movement data is required to be submitted as part of the applicant's traffic impact analysis.

- I. Adequate Accommodation of Traffic: The ability of a highway system to carry traffic is expressed in terms of "Service Level" at the critical locations (usually intersection). "Service Level" is defined alphabetically as follows:

- "A" Conditions of free unobstructed flow, no delays and all signal phases sufficient in duration to clear all approaching vehicles.
- "B" Conditions of stable flow, very little delay, a few phases are unable to handle all approaching vehicles.
- "C" Conditions of stable flow, delays are low to moderate, full use of peak direction signal phase (s) is experienced.

- "D" Conditions approaching unstable flow, delays are moderate to heavy, significant signal time deficiencies are experienced for short durations during the peak traffic period.
- "E" Conditions of unstable flow, delays are significant, signal phase timing is generally insufficient, congestion exists for extended duration throughout the peak period.
- "F" Conditions are jammed, full utilization of the intersection approach is prevented due to back-ups from locations downstream.

The following chart indicates the "Critical Lane Volume" ranges to be used in determining "Service Level" for an intersection. Service level volumes for roadway sections and ramps are described in sections eight through ten of the Highway Capacity Manual. ("The Critical Lane Volume" technique is described in Section J.)

Intersection Levels of Service by Critical Lane Volume Ranges

977 or less		1023 to 1127		1173 to 1277		1323 to 1427		1473 to 1577		1623 or more	
A	A/B	B	B/C	C	C/D	D	D/E	E	E/F	F	
978	to 1022	1128	to 1172	1278	to 1322	1428	to 1472	1578	to 1622		

- J. "Critical Lane Volume" Technique: A technical description of the "critical lane volume" technique is given in the January 1971 issue of Traffic Engineering magazine.* The following step-by-step procedure should be sufficiently descriptive to enable the applicant to utilize the technique at simple two-phase or unsignalized intersections.

The peak hour approaching traffic volume and turning movements for the intersection being analyzed will be determined in the traffic generation and trip distribution phase of the analysis. At unsignalized intersections, a two-phase operation should be assumed.

The following is a step-by-step description of how to determine the Level of Service (LOS) for an intersection.

- Step 1. Note the number of approach lanes from each direction.
- Step 2. Subtract from the total approach volume any right turn volume that operates continuously throughout the signal cycle. (i.e., a free right turn by-pass)
- Step 3. Determine the maximum volume per lane from each approach using the following table. (Note: Do not count lanes established for

* New methods for doing a critical lane summation analysis are proposed in Transportation Research Board (TRB), Circular 212. These guidelines may subsequently be amended to incorporate those new procedures once they are adopted.

exclusive use such as left turn storage lanes - the lane use factor for exclusive use lanes is 1.00)

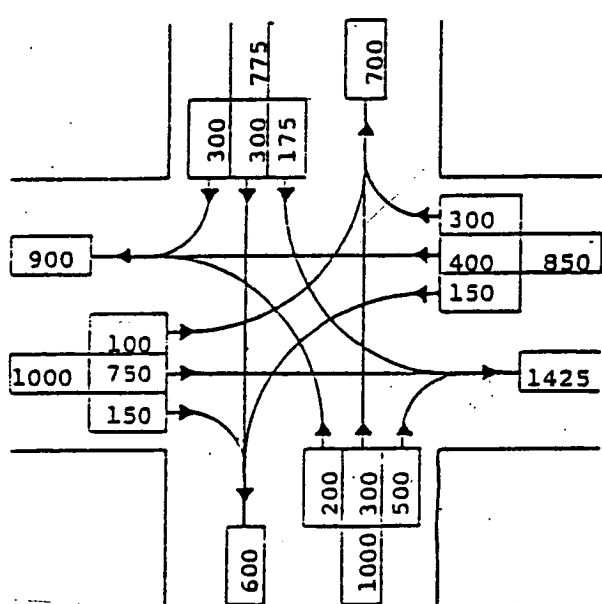
<u>Number of Approach Lanes</u>	<u>Lane Use Factor</u>
1	1.00
2	0.55
3	0.40
4	0.30

- Step 4. Select the maximum volume per lane in one direction (e.g., northbound) and add it to the opposing (e.g., southbound) left turn volume.
- Step 5. Select the maximum volume per lane operating in the opposite direction of the approach selected in Step 4.
- Step 6. The maximum total of Step 4 or Step 5 will be the "critical" volume for phase one (e.g., north-south).
- Step 7. Repeat Steps 4 through 6 for lanes operating in phase two (e.g., east-west).
- Step 8. Sum the "critical" volumes for each phase.
- Step 9. Compare the resultant "Critical Lane Volume" for the intersection with the range table on page .

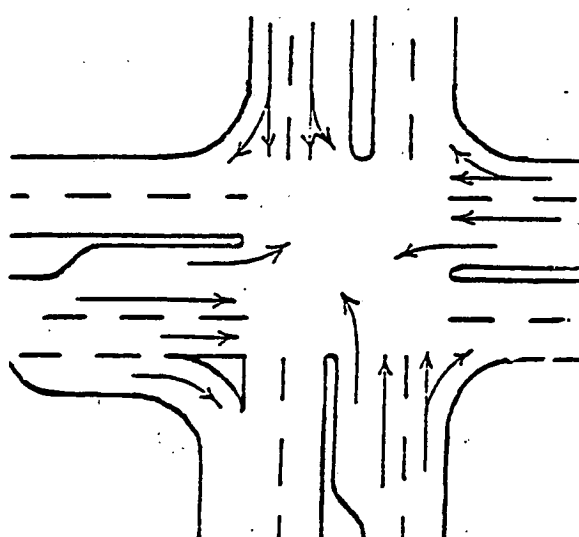
If the intersection under consideration is a complex one with special conditions such as phasing lags, leads, or overlaps, application of the "Critical Lane Volume" technique may require professional assistance such as the aid of consultant traffic engineers or staff from the Maryland Department of Transportation or the Montgomery County Department of Transportation.

"Critical Lane Volume" Technique Example

TURNING VOLUMES



INTERSECTION GEOMETRICS



<u>From</u>	<u>Approach Volume</u>	<u>Lane Use Factor</u>	<u>Critical Approach Volume</u>		<u>Opposing Lefts</u>		<u>Critical Lane Volume Per Approach</u>
N	775 ⁽¹⁾	0.55	426	+	200	=	626
S	800 ⁽²⁾	0.55	440	+	175	=	615
S OR	500	1.00	500	+	175	=	675*
E	700 ⁽³⁾	0.55	385	+	100	=	485
W	750 ⁽⁴⁾	0.55	412	+	150	=	562*

*"Critical Lane Volume" = 675 + 562 = 1,237 vph.
1,237 represents Service Level C (from table on page).

- (1) Approach volume sum of throughs, rights and lefts in two lanes.
- (2) For a heavy right turn must evaluate worst of rights in one lane or throughs and rights in two lanes.
- (3) Approach volume sum of throughs and rights in two lanes.
- (4) Approach volume is through only because of free right and separate left.

K. Items that must be submitted as a part of the Local Area Transportation Review: In an effort to standardize what information is submitted in a Local Area Transportation Review, the following must be submitted before the preliminary plan application is considered complete when this review is required.

1. A site or area map showing existing roads in the area.
2. The location on the site map of "programmed" highway improvements, if any, that are in the County's Capital Improvements Program (CIP) or the State's Consolidated Transportation Program (CTP), which would affect traffic at the critical intersection(s) to be studied provided that they are scheduled for at least 50 percent of their construction costs to be expended within the program period of the adopted CIP or CTP.
3. Existing A.M. and P.M. peak traffic count summaries for all "nearby" critical intersections.
4. "Nearby" recorded subdivisions that would affect traffic at the critical intersection(s), with their location shown on the area map.
5. A table giving A.M. and P.M. peak hour traffic generated by all "nearby" recorded but unbuilt subdivisions showing the generation rate for each type of subdivision.
6. A.M. and P.M. peak hour traffic generated by the proposed subdivision proportioned to the traffic entering and leaving the site.

7. Trip distribution pattern, in percent, for the "nearby" recorded subdivisions during the A.M. and P.M. peak hour, with the pattern being shown on an area map.
8. Trip distribution pattern, in percent, for the proposed subdivision during the A.M. and P.M. peak hours, with the pattern being shown on an area map.
9. Maps which show separately and in combination:
 - (a) Existing A.M. and P.M. traffic volumes assigned to the affected highway system.
 - (b) Projected A.M. and P.M. traffic volumes assigned to the affected highway system for all "nearby" recorded subdivisions.
 - (c) Projected A.M. and P.M. traffic volumes assigned to the affected highway system for the proposed subdivision.
10. Any study performed to help determine how to assign recorded or proposed development traffic, such as a license plate study or special turning movement counts, should also be supplied.
11. Copies of all critical lane analyses, showing calculations for each approach, should be included.
12. A listing of all transportation improvements, if any, that the developer agrees to provide.

GLOSSARY OF SELECTED TERMS AND ABBREVIATIONS*

APFO and APF: (Adequate Public Facility Ordinance)

An element of the Subdivision Ordinance which requires the Planning Board to make a finding that existing or programmed public facilities are adequate before they can approve a preliminary plan of subdivision.

ADT: (Average Daily Traffic)

The number of vehicles travelling on a segment of roadway during the 24 hours of an average weekday.

CIP: (Capital Improvements Program)

Each year the Montgomery County Executive prepares and the County Council adopts a six year program for capital expenditures to expand and/or renovate Montgomery County's public facilities.

CPP: (Comprehensive Planning Policy)

The abbreviated designation for this annual report.

CTAC: (Citizens Technical Advisory Committee)

This is a committee of citizens and building industry representatives appointed by the Planning Board, plus ex-officio representatives from the County Executive staff. The CTAC has responsibility for reviewing the CPP and also for disseminating information concerning the Planning Board's administration of the APFO.

CTP: (Consolidated Transportation Program)

The transportation capital improvements program annually adopted and administered by the State of Maryland.

CSP: (Comprehensive Staging Policy)

The designation previously used to describe APF changes recommended by the Planning Board to the County Council in 1979. The CSP has been incorporated within the APF guideline changes included in the Staging Chapter of this CPP.

GROWTH POLICY

The aggregation of adopted public policies which control the location, scale, type and timing of development within the County. CPP materials reflect integral and essential aspects of Montgomery County's growth policy.

LAR: (Local Area Review)

The portion of the Staging Chapter which requires small scale review and evaluation of a particular area of the County in order to determine whether there are Adequate Public Facilities to serve a particular subdivision.

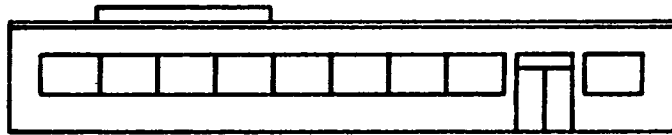
* (See page for terms related directly to staging issues; Programmed Facility, Sewer Authorization/Pipeline, Staging Policy Area, Threshold).

LOS: (Level of Service)

A description of the quality of performance of a facility given the demands being placed upon that facility; mostly used in this report in terms of transportation facilities which reference an A to F quality scale. This is nationally accepted scale used to describe the quality of roadway service.

MdDOT: (Maryland Department of Transportation)

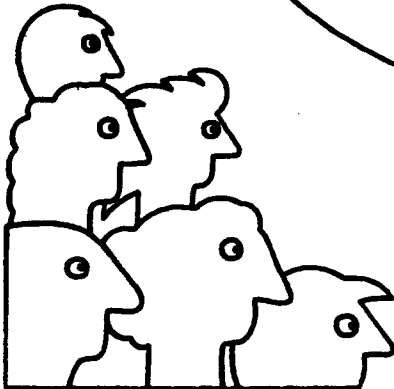
The State of Maryland arm government responsible for planning and implementing the improvements to those elements of the transportation system which are the administrative responsibility of the state.



1984
COMPREHENSIVE

STATUS

PLANNING POLICIES
REPORT



STATUS RESIDENTIAL DEVELOPMENT

Montgomery County (including the independent localities of Gaithersburg and Rockville) homebuilding activity in 1983 showed a sharp resurgence from the recession-induced low of 1982. The number of dwelling units covered by building permits doubled, from 5,856 in 1982 to 11,725 in 1983. Dwelling unit completions in 1983 increased by 74 percent over the previous year's.

Restoration of the County's housing market vigor reflected not only an improved nationwide economic climate, but also the abatement of local area uncertainties concerning federal employment levels. Administration strategies for reducing federal jobs were generally limited to less-unsettling ceiling freezes and resultant attritional losses.

The reduction in mortgage loan interest rates and the comparative abundance of mortgage funds undergirded 1983's homebuilding recovery. These benefits also spilled over into the resale of existing homes, as County used home sales showed a 93 percent increase between 1982-1983, nearly three times larger than the corresponding nationwide increase.

For the first half of 1984, permitted units in Montgomery County (exclusive of the two independent localities) were running about 5.5 percent below 1983 corresponding levels. First four month activity in 1984, in fact, ran ahead of counterpart 1983 levels; however, the May-June 1984 period witnessed a 500 unit drop over the corresponding 1983 period. Permit activity for the remainder of 1984 is uncertain. Given a strong first-half start and a robust local economy, it appears that permits will approximate or fall somewhat short of 1983 levels. Based upon first-half 1984 completions data, this year's housing production is likely to exceed 1983 output. In part, this reflects carry-over translation of 1983's high level of permits into actual starts.

It should be noted that permitted units in 1983 were almost double the number of completed units. A similar relationship is also noted from permit and completions data for the first half of 1984. There is no ready explanation, thus far, for this continuing discrepancy. Additional investigations will have to be undertaken concerning this continuing substantial discrepancy between permits and completions.

Comparative Levels of Activity

Montgomery County's share of total metro area housing production (exclusive of Charles, Frederick and Calvert Counties) during the 1970's, as reflected by building permit activity, remained fairly constant at about 20 percent. The 1980's decade,

TABLE 7

**DISTRIBUTION OF RESIDENTIAL BUILDING PERMIT AUTHORIZATIONS ISSUED IN
WASHINGTON METROPOLITAN AREA SMSA FROM 1972 - MAY 1983 BY JURISDICTION**

		1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
DISTRICT OF COLUMBIA	Number Units	591	1,790	1,226	436	1,968	2,194	2,211	1,742	2,642	649	368	207 ³
	Percent Units	1.38	4.90	7.96	4.70	11.65	9.10	9.53	8.35	13.40	4.62	2.25	0.69
ALEXANDRIA	Number Units	2,811	2,393	3,145	987	683	544	635	330	568	311	231	329
	Percent Units	6.57	6.55	20.43	10.64	4.04	2.26	2.74	1.58	2.88	2.21	1.41	1.09
ARLINGTON COUNTY	Number Units	121	1,662	219	189	418	985	722	656	563	595	386	799
	Percent Units	.28	4.55	1.42	2.04	2.47	4.08	3.11	3.14	2.86	4.24	2.36	2.65
FAIRFAX ¹ COUNTY	Number Units	17,429	11,428	4,288	3,521	5,996	10,014	8,361	8,380	6,563	4,772	5,190	9,929 ³
	Percent Units	40.74	31.27	27.85	35.05	35.48	41.52	36.02	40.14	33.30	33.99	31.76	32.97
LOUDOUN COUNTY	Number Units	1,587	1,360	1,122	224	492	904	743	463	342	378	700	1,181
	Percent Units	3.71	3.72	7.29	2.42	2.91	3.75	3.20	2.22	1.74	2.69	4.28	3.92
PRINCE WILLIAM COUNTY	Number Units	3,771	3,332	931	800	1,724	2,293	2,997	2,155	1,643	1,507	1,764	2,823
	Percent Units	8.82	9.12	6.05	8.63	10.20	9.51	12.91	10.32	8.34	10.73	10.80	9.37
MONTGOMERY ² COUNTY	Number Units	10,514	7,802	1,632	1,935	3,569	3,926	5,122	4,676	5,683	3,994	5,856	11,725 ³
	Percent Units	24.58	21.35	10.60	20.86	21.12	16.28	22.07	22.41	28.83	28.45	35.84	38.92
PRINCE GEORGE'S COUNTY	Number Units	5,953	6,775	2,833	1,453	2,049	3,260	2,420	2,459	1,706	1,835	1,845	3,122
	Percent Units	13.92	18.54	18.40	15.67	12.12	13.52	10.43	11.78	8.66	13.07	11.29	10.37
TOTAL	Number Units	42,777	36,542	15,396	9,545	16,899	24,120	23,211	20,861	19,710	14,041	16,340	30,115
	Percent Units	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

¹ Includes data for the cities of Fairfax and Falls Church.

² Includes data for the cities of Rockville and Gaithersburg.

³ Estimated.

SOURCE: Metropolitan Washington Council of Governments, Department of Human Resources. 1981 data has been revised slightly from last year's table.

remained fairly constant at about 20 percent. The 1980's decade, however, began to witness Montgomery's increasingly larger claimancy of the area's total homebuilding action. In 1980 and 1981, the County's share of permitted units increased to 28 percent; in 1982, this share leaped to nearly 36 percent and in 1983, to almost 39 percent.

Total County permit activity, for the second year in a row, exceeded that of Fairfax County, whose residential growth had previously led the entire region. The approximately 700 unit lead over Fairfax in 1982 stretched to a 1,800 unit lead in 1983.

Montgomery County's Housing Production Mix

Prior to the 1980's, traditional single-family, detached sales units dominated Montgomery County's housing production. The beginning of the decade, however, witnessed a changeover in production emphasis to generally lower priced and more affordable townhouse development. The highwater mark for townhouses occurred in 1982, when two-thirds of all permitted sales units were of this type. The first half of 1982 was characterized by unusually high mortgage interest rates, and a widened affordability gap could be more readily spanned with more economical, lower cost townhouse production.

National and local recovery from the 1981-1982 economic recession and an attendant lowering of mortgage interest rates in late 1982 and 1983 caused a production shift back to higher-priced detached sales units. Attached housing in 1983 retreated from two-thirds to 60 percent of permitted sales units, and for the first half of 1984 declined additionally to 53 percent. With an anticipated rise in mortgage interest rates in the latter half of 1984, builder emphasis is likely to shift again to a higher proportion of townhouse units.

County multi-family housing production, measured by permitted units, showed steady, substantial decline in 1980-1982, from 29 to 9 percent. This decline was due to expiration of additional contract authority under HUD's Section 8 rental housing subsidy program and to termination of HUD's below-market rate Tandem mortgage financing program. Reversal to this trend began in 1983, when multi-family units rose to 17 percent of total (exclusive of the two independent localities) permit activity. New condominium activity accounted for a very substantial part of 1983's multi-family resurgence.

MEDIAN PRICE OF NEW AND USED HOUSING
ATTACHED AND DETACHED SINGLE-FAMILY HOUSING COMBINED
MONTGOMERY COUNTY 1968 - 1983

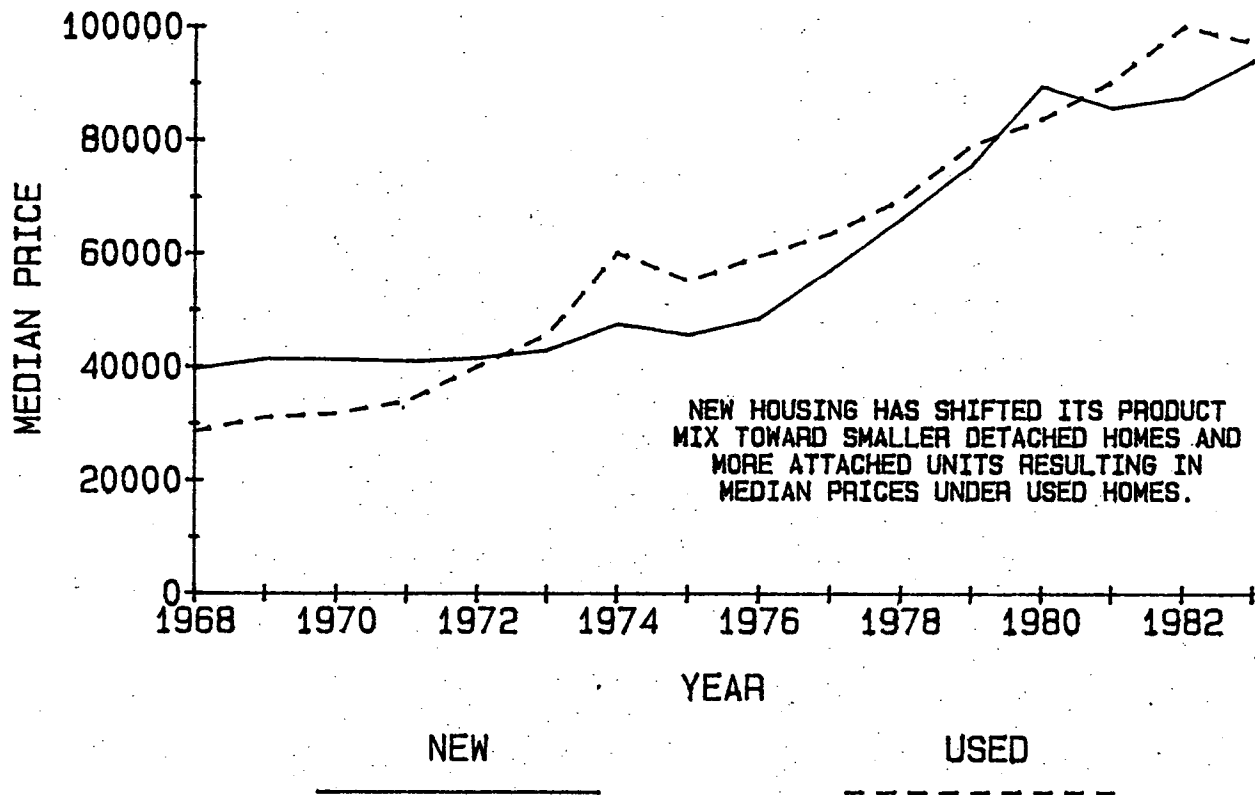


TABLE 8
MEDIAN PRICE OF NEW AND USED HOUSING
ATTACHED AND DETACHED SINGLE-FAMILY HOUSING COMBINED
MONTGOMERY COUNTY 1968 - 1983

Year	New	New Index	Used	Used Index
1968	39,500	100	28,600	100
1969	41,350	105	31,100	109
1970	41,100	104	31,800	111
1971	40,800	103	33,900	118
1972	41,500	105	40,000	140
1973	42,900	109	45,600	159
1974	47,500	120	50,000	175
1975	45,500	115	55,000	192
1976	48,500	123	59,500	208
1977	57,000	144	63,500	222
1978	65,999	167	69,499	243
1979	75,500	191	79,000	276
1980	89,444	226	83,664	292
1981*	85,522	216	90,315	316
1982	87,500	222	100,000	350
1983	94,000	238	97,000	339

* Date for first six months.

Source: Montgomery County Planning Board, Research Division.

During the first six months of 1984, multi-family units (County, exclusive of Gaithersburg and Rockville) rose to 26.5 percent of all permit activity. Locally-financed rental housing has accounted for the bulk of this production shift, with the County's Housing Opportunities Commission (HOC) expected to provide below-market rate, tax exempt revenue bond financing for start of some 2,500 new rental units during 1983-1984 and 665 additional units in 1985.

Interest Rates

The homebuilding recovery of 1983 was supported by substantial improvement in the availability and price of home mortgage financing. The mid-1982 average mortgage rate in the Washington metro area exceeded 17 percent (conventional, fixed-rate mortgage, 25 year term and 75 percent price to loan ratio). By the end of 1982 the interest rate had dropped to 13.27 percent. This average rate, however, has again begun to climb, to 14.4 percent in June 1984. Industry economists forecast additional mortgage interest rate increases caused by heavy federal borrowings to support large-scale budget deficits and increased borrowings for business and personal credit. Coupled with this rising cost of money has been the reluctance of area lenders to make fixed-rate mortgage loans. Adjustable Rate Mortgages (ARM's), which protect lenders against future rising interest rates, have reportedly accounted for over one-half of locally initiated home mortgages.

Sales Housing Prices

The following 1982-1983 data are obtained from the County's STAR (Sales Transactions Automated Reports) system and apply to the entire County.

The 1983 median price for new townhouse sales units in Montgomery County increased by a relatively modest 5 percent over 1982's, from \$78,500 to \$82,500. There was a 1983 decrease in the proportion of lowest-price townhouse units, i.e., under \$70,000, from 1982's 39.6 percent to 26.8 percent, and an increase of townhouse units priced at \$100,000 and more, from 15.4 percent in 1982 to 23.8 percent in 1983. In the modal price cluster of \$80,000-\$110,000, 1982 and 1983 proportional activities were almost identical.

The 1983 median price for detached new sales housing units showed nominal decline from 1982, from \$124,000 to \$123,000. The share of under-\$100,000 detached homes was only modestly lower in 1983 than in 1982. Largest proportional 1983 gains were registered in homes priced between \$150,000-\$200,000.

In the resale of existing townhouses, the 1983 median price for townhouses of \$74,500 was actually below 1982's \$84,000.

Almost 41 percent of 1983 townhouse resales were priced below \$70,000, whereas counterpart 1982 activity amounted to only 26.5 percent. The above probably suggests a more rapid turnover rate in "starter" lowest-priced townhouses, as initial occupants rapidly upgrade to more expensive housing, townhouse or detached.

The median price for existing detached single-family homes remained constant at \$110,000 for both 1982 and 1983. This stability of prices probably reflects the enhanced competitive nature of the market resulting from 1983's substantial upsurge of new sales housing production.

Existing sales dominated total single-family transactions in 1983 by more than 2:1, 9,499 units compared to 4,556. Existing condominium unit sales amounted to 4,203 and represented almost 31 percent of total existing home sales, i.e., detached and townhouse single-family units, plus condominiums. The substantial market capture rate of condominiums can be attributed to their lower prices; the 1983 median price for existing condominium units was \$59,500, with almost 23 percent priced below \$50,000.

The following table shows the Bethesda and Potomac Planning Areas with the highest 1983 median prices for new detached sales housing (in substantial amount), \$264,500 and \$258,000, respectively. The outlying Damascus Planning Area provided substantial detached housing sales under \$85,000, and Germantown and (incorporated) Gaithersburg, under \$100,000.

The Gaithersburg and the Germantown Planning Areas provided the lowest priced new attached (townhouse) housing in large-scale quantities. The 1983 median price for such units was below \$80,000, a price level also matched in the Fairland Planning Area of the US 29 Corridor.

TABLE 9
MEDIAN SINGLE-FAMILY HOUSING PRICES^{1/}
CALENDAR YEAR 1983

Policy Areas and Planning Areas	New Single-Family Detached	Existing Single-Family Detached	New Single-Family Attached	Existing Single-Family Attached
SILVER SPRING				
PA 36 Silver Spring	\$105,000	\$97,000	\$89,500	\$72,500
37 Takoma Park	--	85,000	--	65,000
BETHESDA				
PA 35 Bethesda	264,500	145,000	198,000	115,500
NORTH BETHESDA				
PA 26 Rockville	168,500	93,000	112,000	92,000
30 N. Bethesda	208,500	124,500	142,500	144,000
KENSINGTON-WHEATON				
PA 27 Aspen Hill	165,000	100,000	100,000	79,000
31 Wheaton	130,000	84,000	94,500	70,000
32 Kemp Mill	136,500	90,000	104,500	80,000
I-270 CORRIDOR				
PA 13 Clarksburg	--	93,000	--	--
19 Germantown	97,000	101,000	73,000	65,000
20 Gaithersburg	95,000	113,000	78,500	71,500
21 Gaithersburg	116,000	100,000	89,000	79,500
COLESVILLE				
PA 28 Cloverly	117,500	118,000	105,000	62,500
33 White Oak	91,500	115,000	102,500	97,500
34 Fairland	143,000	131,500	78,500	69,500
POTOMAC				
PA 24 Darnestown	119,000	145,500	56,500	57,500
25 Travilah	167,500	145,000	--	--
29 Potomac	258,000	179,000	147,000	118,000
OLNEY				
PA 23 Olney	117,500	113,000	78,864	73,000
DAMASCUS				
PA 10 Bennett	84,500	98,000	--	--
11 Damascus	85,500	82,000	76,000	54,500
14 Goshen	85,000	94,500	--	--
15 Patuxent	--	119,500	--	--
22 Rock Creek	144,500	112,000	88,500	80,000
POOLESVILLE				
PA 12 Dickerson	--	123,000	--	--
16 Martinsburg	--	110,000	--	--
17 Poolesville	--	87,500	--	56,000
18 Lower Seneca	--	87,500	--	67,000
TOTAL COUNTY	123,000	110,000	82,500	74,500

^{1/} This data includes market priced housing and excludes bulk transfers of property, relative to relative transfers and transfers made without monetary consideration. A blank indicates a lack of market price transactions. Prices are determined by tax stamps paid at the time of transfer.

Sources: Montgomery County Planning Board, Research Division, STAR system.

TABLE 10

MONTGOMERY COUNTY DEVELOPMENT REPORT FOR 1983
 (Number of Permits and Actions Processed Between January and December 1983)

	Single Family		Apartment Units	Total Dwelling Units
	Detached Units	Town- house Units		
RESIDENTIAL				
Sewer Authorizations Issued	1,524	3,197	1,027	5,748
Pre-Preliminary Plans Approved (87 Plans)				
Preliminary Plans Approved (162 Plans)	2,872	4,116	2,615	9,603
Plats Recorded (385 Record Plats)	2,956	4,138	3,705	10,799
Building Permits Issued	3,951	5,684	1,912	11,547
Completions	2,501	3,313	339	6,153
COMMERCIAL AND INDUSTRIAL				
Sewer Authorizations Issued	4.1 Million Square Feet - Gross Floor Area			
Completions	3.2 Million Square Feet - Gross Floor Area			

DEVELOPMENT ACTIVITY - January 1984 - June 1984

	<u>Single Family</u>		Apartment Units	Total Dwelling Units
	Detached Units	Attached Units		
RESIDENTIAL				
Sewer Authorizations Issued	1,153	882	1,528	3,563
Pre-Preliminary Plans Approved		254		254
Preliminary Plans Approved	5,004		369	5,373
Record Plats Approved	4,947		209	5,166
Building Permits Issued	1,985	2,255	1,530	5,770
Completions	2,857		549	3,406
COMMERCIAL AND INDUSTRIAL				
Sewer Authorizations Issued	2.6 Million Square Feet - Gross Floor Area			
Preliminary Plans Approved	10			
Record Plats Approved	10			

Source: Montgomery County Planning Board, Research Division.

APPROVED PRELIMINARY SUBDIVISION PLANS BY STRUCTURE TYPE MONTGOMERY COUNTY 1972 - 1983

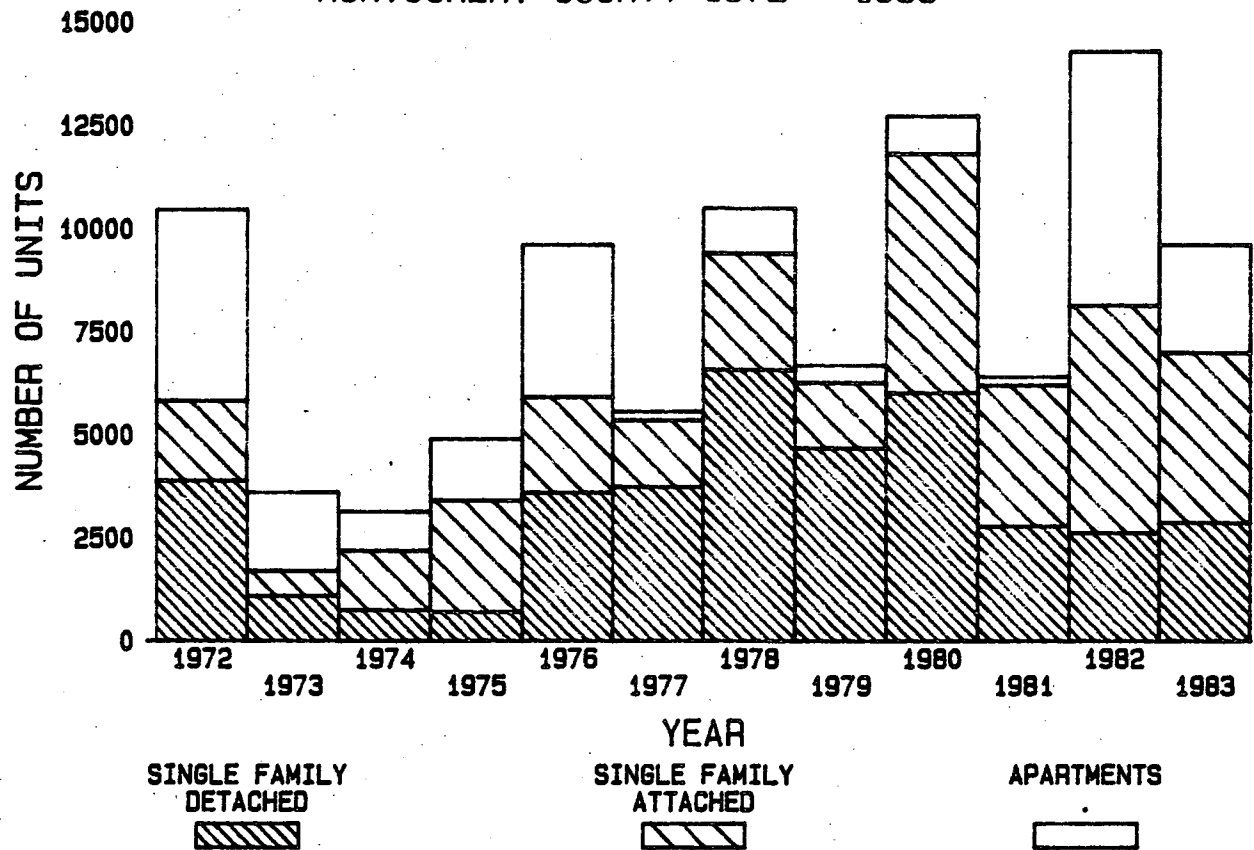


TABLE 11

APPROVED PRELIMINARY SUBDIVISION PLANS, BY STRUCTURE TYPE
MONTGOMERY COUNTY
1972-1983

Period	SF Detached		SF Attached		Apartments		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Jan.-Dec. 1972	3,882	37%	1,934	18%	4,639	44%	10,455	100%
Jan.-Dec. 1973	1,089	30%	600	17%	1,908	53%	3,597	100%
Jan.-Dec. 1974	741	24%	1,444	46%	942	30%	3,127	100%
Jan.-Dec. 1975	705	14%	2,700	55%	1,492	30%	4,897	100%
Jan.-Dec. 1976	3,593	37%	2,315	24%	3,689	38%	9,597	100%
Jan.-Dec. 1977	3,735	67%	1,611	29%	208	4%	5,554	100%
Jan.-Dec. 1978	6,575	63%	2,821	27%	1,093	10%	10,489	100%
Jan.-Dec. 1979	4,679	70%	1,582	24%	418	6%	6,679	100%
Jan.-Dec. 1980	6,019	47%	5,792	46%	909	7%	12,720	100%
Jan.-Dec. 1981	2,783	43%	3,414	53%	208	3%	6,405	100%
Jan.-Dec. 1982	2,622	18%	5,511	39%	6,150	43%	14,283	100%
Jan.-Dec. 1983	2,872	30%	4,116	43%	2,615	27%	9,603	100%
TOTAL-Jan. 1972-Dec. 1983	39,295	40%	33,840	35%	24,271	25%	97,406	100%

SOURCE: Montgomery County Planning Board, Research Division.

NOTE: Does not include preliminary plans from the incorporated cities of Gaithersburg and Rockville.

RECORD PLATS BY STRUCTURE TYPE MONTGOMERY COUNTY 1972 - 1983

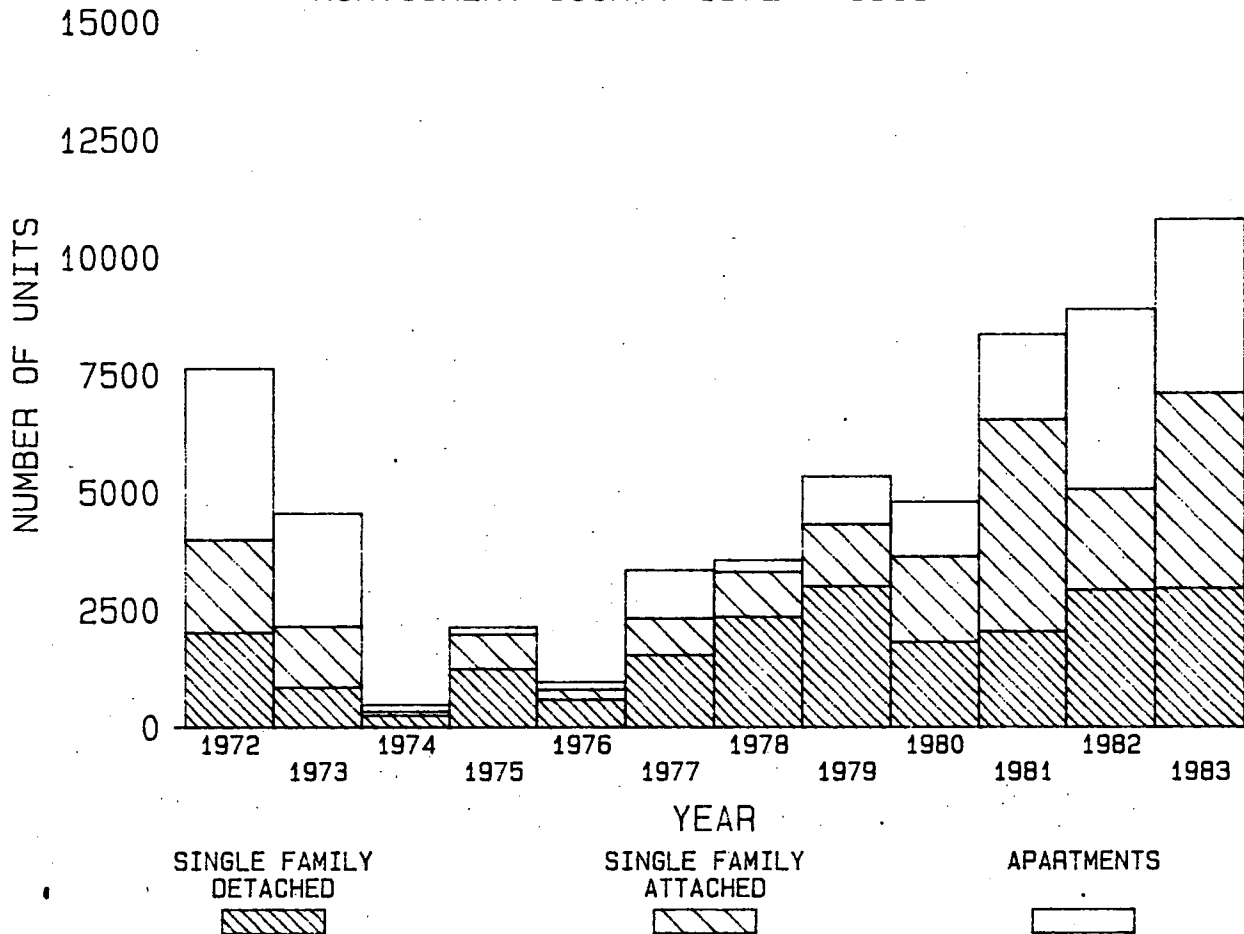


TABLE 12

RECORD PLATS BY STRUCTURE TYPE MONTGOMERY COUNTY 1972-1983

Period	SF Detached		SF Attached		Apartments		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Jan.-Dec. 1972	2,013	26%	1,973	26%	3,647	48%	7,633	100%
Jan.-Dec. 1973	849	19%	1,295	29%	2,399	53%	4,543	100%
Jan.-Dec. 1974	250	53%	77	16%	147	31%	474	100%
Jan.-Dec. 1975	1,240	58%	739	35%	153	7%	2,132	100%
Jan.-Dec. 1976	590	61%	216	22%	156	16%	962	100%
Jan.-Dec. 1977	1,535	46%	780	23%	1,026	31%	3,341	100%
Jan.-Dec. 1978	2,347	66%	955	27%	252	7%	3,554	100%
Jan.-Dec. 1979	3,001	56%	1,312	25%	1,018	19%	5,331	100%
Jan.-Dec. 1980	1,812	38%	1,814	38%	1,163	24%	4,789	100%
Jan.-Dec. 1981	2,037	24%	4,499	54%	1,814	22%	8,350	100%
Jan.-Dec. 1982	2,922	33%	2,137	24%	3,828	43%	8,887	100%
Jan.-Dec. 1983	2,872	27%	4,138	39%	3,705	35%	10,715	100%
TOTAL-Jan. 1972-Dec. 1983	21,468	35%	19,935	33%	19,308	32%	60,711	100%

SOURCE: Montgomery County Planning Board, Research Division.

NOTE: Does not include plats from the incorporated cities of Gaithersburg and Rockville.

BUILDING PERMIT BY STRUCTURE TYPE MONTGOMERY COUNTY 1972 - 1983

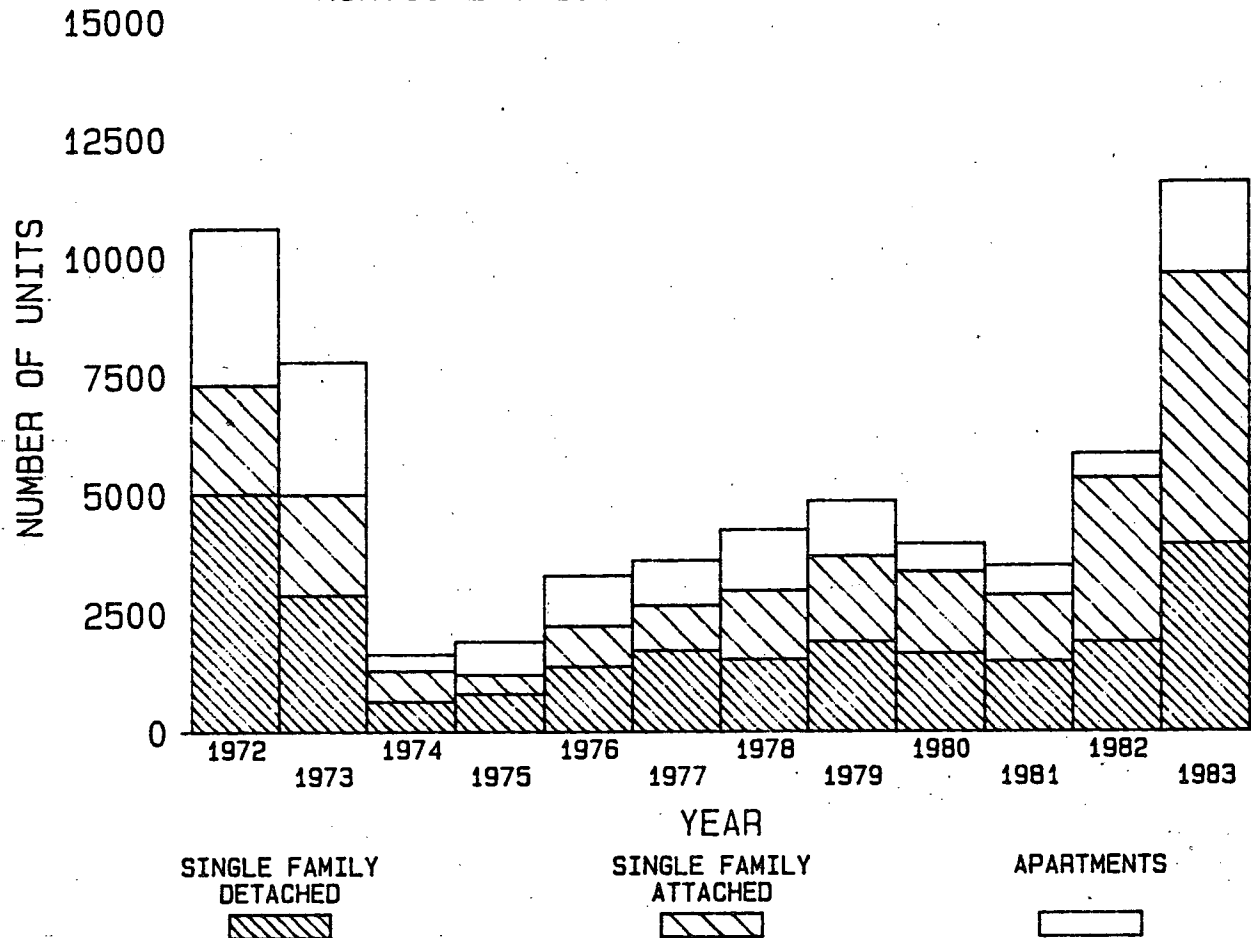


TABLE 13

BUILDING PERMITS, BY STRUCTURE TYPE MONTGOMERY COUNTY 1972-1983

Period	SF Detached		SF Attached		Apartments		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Jan.-Dec. 1972	5,013	47%	2,299	22%	3,293	31%	10,605	100%
Jan.-Dec. 1973	2,888	37%	2,111	27%	2,792	36%	7,791	100%
Jan.-Dec. 1974	639	39%	641	39%	349	21%	1,629	100%
Jan.-Dec. 1975	806	42%	393	21%	705	37%	1,904	100%
Jan.-Dec. 1976	1,373	42%	861	26%	1,066	32%	3,300	100%
Jan.-Dec. 1977	1,713	47%	953	26%	950	26%	3,616	100%
Jan.-Dec. 1978	1,523	36%	1,456	34%	1,276	30%	4,255	100%
Jan.-Dec. 1979	1,899	39%	1,796	37%	1,162	24%	4,857	100%
Jan.-Dec. 1980	1,649	42%	1,722	43%	589	15%	3,960	100%
Jan.-Dec. 1981	1,480	42%	1,408	40%	609	17%	3,497	100%
Jan.-Dec. 1982	1,894	32%	3,449	59%	513	9%	5,856	100%
Jan.-Dec. 1983	3,951	34%	5,684	49%	1,912	17%	11,547	100%
TOTAL-Jan. 1972- Dec. 1983	24,828	40%	22,773	36%	15,216	24%	62,817	100%

SOURCE: Montgomery County Planning Board, Research Division, data supplied by Montgomery County Department of Environmental Protection and the incorporated cities of Gaithersburg and Rockville.

NOTE: 1892 data from "Summary of Residential Building Permit Authorizations for the Washington Metropolitan Area," Metropolitan Washington, COG.

HOUSING COMPLETIONS BY STRUCTURE TYPE MONTGOMERY COUNTY 1972 - 1983

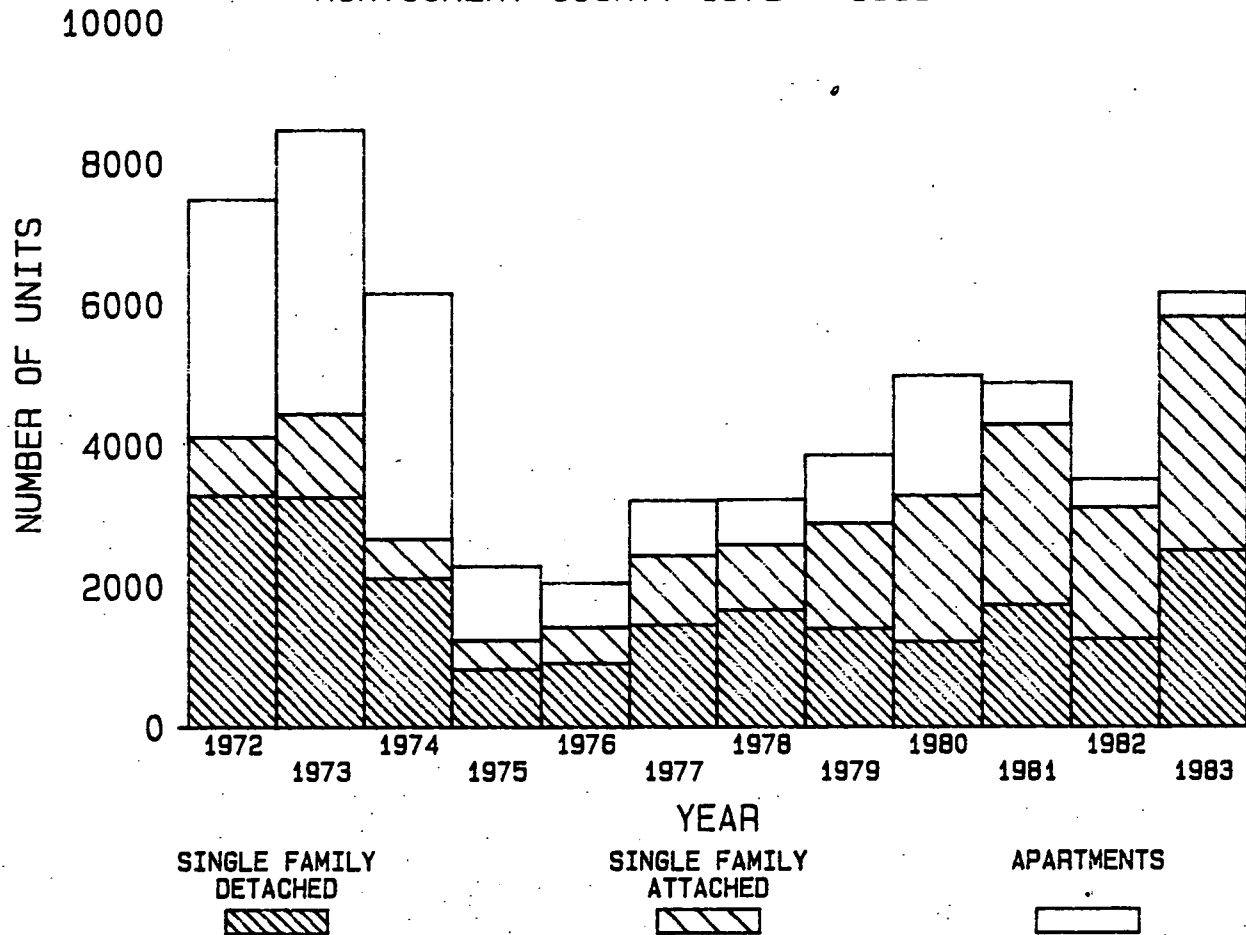


TABLE 14

HOUSING COMPLETIONS, BY STRUCTURE TYPE MONTGOMERY COUNTY 1972-1983

Period	SF Detached		SF Attached		Apartments		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Jan.-Dec. 1972	3,289	44%	830	11%	3,365	45%	7,484	100%
Jan.-Dec. 1973	3,265	39%	1,179	14%	4,024	48%	8,468	100%
Jan.-Dec. 1974	2,113	34%	554	9%	3,489	57%	6,156	100%
Jan.-Dec. 1975	822	36%	411	18%	1,048	46%	2,281	100%
Jan.-Dec. 1976	909	45%	508	25%	625	31%	2,042	100%
Jan.-Dec. 1977	1,454	45%	976	30%	783	24%	3,213	100%
Jan.-Dec. 1978	1,664	52%	920	29%	640	20%	3,224	100%
Jan.-Dec. 1979	1,399	36%	1,489	39%	967	25%	3,855	100%
Jan.-Dec. 1980	1,207	24%	2,073	42%	1,698	34%	4,978	100%
Jan.-Dec. 1981	1,733	36%	2,556	52%	590	12%	4,879	100%
Jan.-Dec. 1982	1,247	36%	1,864	53%	395	11%	3,506	100%
Jan.-Dec. 1983	2,501	41%	3,313	54%	339	6%	6,153	100%
TOTAL-Jan. 1972-Dec. 1983	21,603	38%	16,673	30%	17,963	32%	56,239	100%

SOURCE: Montgomery County Planning Board, Research Division, from records of the Supervisor of Assessments, State of Maryland.

HOUSING UNIT PRODUCTION ON SEPTIC AND PUBLIC SEWER MONTGOMERY COUNTY 1960 - 1983

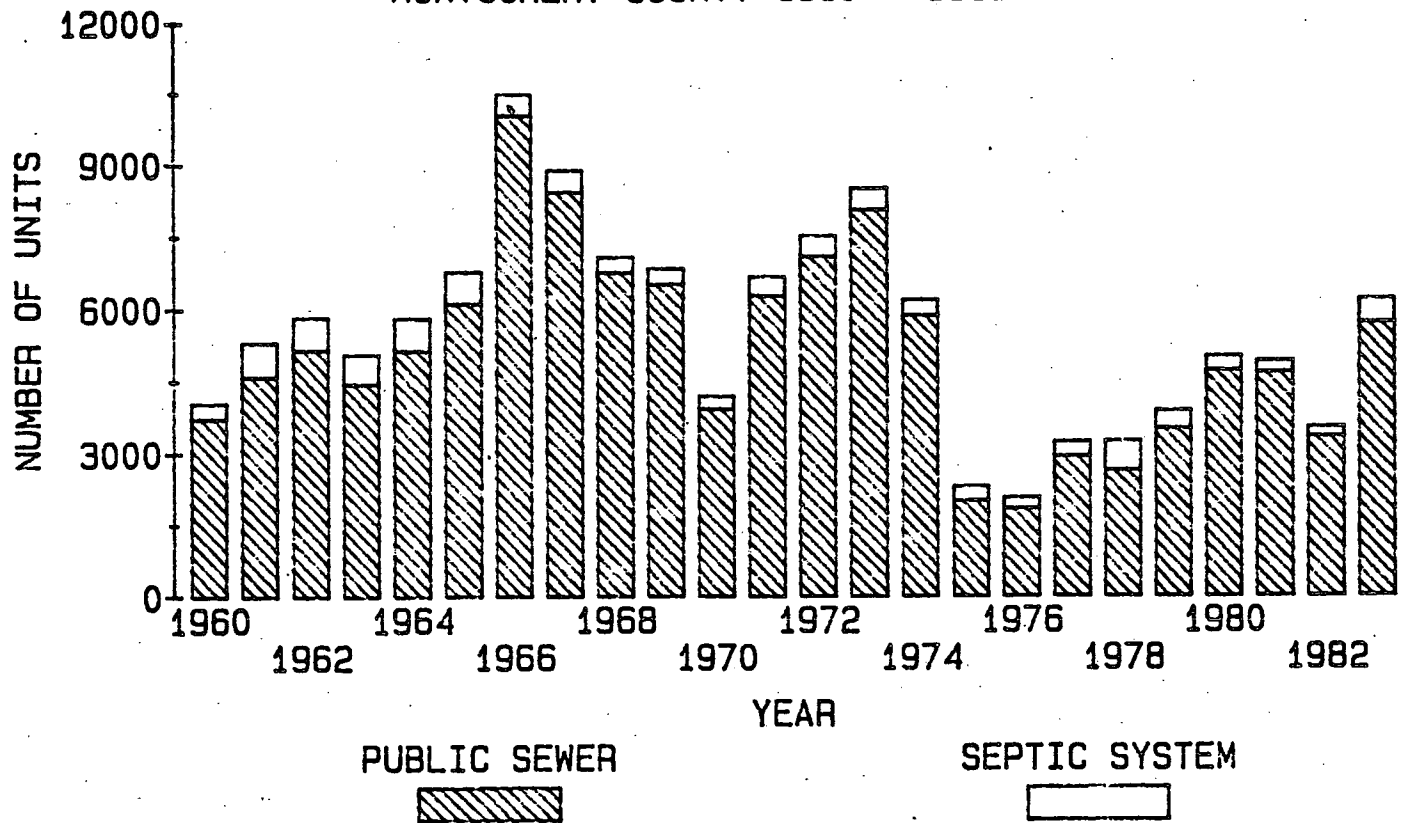


TABLE 15

HOUSING CONSTRUCTION, SEPTIC AND PUBLIC SEWER SERVICE SYSTEMS MONTGOMERY COUNTY 1960-1983

Year	Septic System	Public Sewer Service	Total Units Constructed	% of Total Units Constructed On Septic System
1960	321	3,712	4,033	7.9
1961	708	4,581	5,289	13.4
1962	669	5,144	5,813	11.5
1963	605	4,437	5,042	12.0
1964	672	5,120	5,792	11.6
1965	654	6,097	6,751	9.7
1966	437	10,008	10,445	4.2
1967	456	8,398	8,854	5.1
1968	316	6,730	7,046	4.5
1969	324	6,482	6,806	4.7
1970	262	3,900	4,162	6.3
1971	396	6,244	6,640	5.9
1972	427	7,057	7,484	5.7
1973	439	8,029	8,468	5.2
1974	317	5,839	6,156	5.1
1975	295	1,986	2,281	12.9
1976	229	1,813	2,042	11.2
1977	301	2,912	3,213	9.4
1978	604	2,620	3,224	18.7
1979	370	3,485	3,855	9.6
1980	287	4,691	4,978	5.8
1981	226	4,653	4,879	4.6
1982	187	3,314	3,506	5.3
1983	485	5,668	6,153	4.8
TOTAL - 1960-83	9,987	122,925	132,912	7.5

SOURCE: Montgomery County Planning Board, Research Division, data supplied by the Department of Environmental Protection, Montgomery County.

TABLE 16

POPULATION AND HOUSEHOLDS
1960-1983
MONTGOMERY COUNTY

Year	Population	Households ¹	Change From Previous Year	
			Population	Households
1960	340,928	92,433	-	-
1961	353,400	96,300	12,472	3,867
1962	369,500	101,500	16,100	5,200
1963	386,900	107,100	17,400	5,600
1964	402,000	112,000	15,100	4,900
1965	418,900	117,600	16,900	5,600
1966	438,200	124,200	19,300	6,600
1967	466,300	134,300	28,100	10,100
1968	489,900	142,900	23,600	8,600
1969	508,200	149,700	18,300	6,800
1970	522,809	156,674	14,609	6,974
1971	530,900	161,100	8,091	4,426
1972	544,900	168,100	14,000	7,000
1973	561,100	176,000	16,200	7,900
1974	579,600	185,000	18,500	9,000
1975	589,400	191,400	9,800	6,400
1976	585,800	193,600	-3,600	2,200
1977	581,100	195,600	-4,700	2,000
1978	579,100	198,800	-2,000	3,200
1979	578,300	202,000	-800	3,200
1980	579,053	207,195	753	5,195 ²
1981	582,500	211,200	3,447	4,098 ²
1982	586,500	215,600	4,000	4,400
1982	586,500	215,600	4,000	4,400
1983	590,500 ³	219,000	4,000	3,400
1984	604,000 ³	225,000	13,500	6,000

¹ Occupied housing units.

² May through December.

³ Subject to revision from Census Update Survey.

Sources: 1960, 1970 and 1980 are April figures from the U.S. Census of Population and Housing. All other population and household estimates are for January, produced by the Montgomery County Planning Board, Research Division.

Status of Non-Residential Space

Summary and Conclusion

The pace of non-residential construction and the ability of this new space to be absorbed by the market indicates that employment growth is very strong in Montgomery County. For the third year in a row, non-residential construction has exceeded three million square feet of space. The national recession of 1980-1982 never dampened the optimism of the private sector. New construction continued apace throughout. While regional employment declined between 1981 and 1982, Montgomery County added 3.0 million square feet of space and 1,800 employees. If this was merely the continuation of committed projects, one would have expected a drop in new construction during 1983. In fact, new construction rose in 1983 to 3.2 million.

Will the pace of commercial/industrial development continue? The answer is yes for at least the near term future. One need only look at the buildings under construction to verify this conclusion. A private source has estimated that new office space in the County has been leasing at the rate of 2.4 million square feet per year for 1983 and 1984. This is a substantially higher absorption rate than that witnessed in the late 1970's. Zoning applications, preliminary plan approvals, and record plat activity indicate continued interest in non-residential development. The magnitude of planned development however, may result in longer lease-up periods.

The burden on investors of high interest rates and stretched lease-up periods has been somewhat lessened by innovative financial arrangements. Pension fund and syndicated investment groups have shown increasing acceptance of real estate investments. Insurance companies which have always been involved in the long term financing of major projects are now taking equity positions in new developments, greatly reducing the need for borrowed funds. The "deep pockets" of these investors make the longer initial marketing period more bearable.

Office Building Construction

During 1983, almost 2.1 million square feet of office space was completed in the County. This is significantly increased from the recession influenced 1982 production of 1.5 million square feet. It is still considerably under the highwater mark year of 1981 when 3.0 million square feet came on line. The 1983 construction was accomplished in 42 separate structures, considerably more than 25 new buildings in 1982. The average

size of these structures declined from the 1982 average of almost 60,000 square feet to 49,000 square feet.

The great bulk of new office construction occurred in Rockville and Gaithersburg. (Both of these areas are in the I-270 Corridor.) These areas individually added 710,000 and 744,000 square feet respectively in 14 buildings. Clarksburg was the next largest office space gainer (116,000 sq.ft.) with the sole addition of Comsat's expansion. individual structures included Linpro Lake Forest offices (139,000 sq.ft.), 2277 Research Boulevard (144,000 sq.ft.), 1 Civic Court (134,000 sq.ft.), and 1151 Seven Locks Road (135,000 sq.ft.).

There is a significant amount of development currently under construction. Bethesda is being transformed into a modern office/hotel center. The Metro Center/Rosansky and Kay project is well under construction, as is the neighboring Clark building. These structures will be completed by 1985. The Gateway Building further south on Wisconsin Avenue is just starting. If all plans for Bethesda go to construction, there will be a total addition of more than 2.5 million square feet of space (including buildings under construction). In Silver Spring, three structures which will add more than 250,000 square feet of office space are also nearing completion. All of this will probably be completed in 1985. In addition, a ground breaking ceremony was held at the old Perry Lumber site next to the Metro station. This project should eventually add over 600,000 square feet to the inventory. Jefferson Plaza is under construction (120,000 sq.ft.) and will be a prominent addition to downtown Rockville.

On the Davis tract, the area within the I-270 split and Democracy Boulevard, two buildings are underway. The Rockledge Plaza building alone will be 517,000 square feet and Boston Properties will be another 716,000 square feet.

Development is proceeding in and around the Life Science Center off MD 28 and Key West Avenue. Aside from the Center itself, Spalding and Slye is adding to office inventories.

The County is witnessing an expansion of condominium office projects. These open the possibility of ownership for small office uses. Office condominium projects thus far have been modest in size, but they do add a new dimension to the office market.

Retail Construction

Retail space increased greatly during the 1970's. As expected, those drastic increases have not continued. Additions to retail space have slowed considerably from the 1982 pace of 703,000 square feet. During 1983, "only" 322,000 square feet were completed. This was the least amount added in any of the last four years. For the most part, retail follows residential development. Lakeforest Mall was an exception to this rule and went in advance of local demand. The market has taken account of Lakeforest's growing pains and the vacant Montgomery Ward building across the street. Very little additional space has been added for shopper's goods. Most of the new space has been convenience goods centers and restaurants. There were 10 new retail structures which averaged 32,000 square feet; the same average size as in 1982. For comparison, a modern, full service supermarket averages between 40,000 and 50,000 square feet.

Warehouse/Industrial/Other Construction

This construction category is residual in nature and includes such development as hospitals (if any), warehouses, and manufacturing plants. It is dominated by single bay warehouse type structures. These structures have proven adaptable to a multitude of uses. In addition to traditional storage and distribution functions, they may serve anything from retail activities to auto body repair and the light assembly and processing activities often associated with incubator industrial growth.

Just under 820,000 square feet of warehouse/industrial space was completed in 1983. This is slightly in excess of 1982 production of 801,000 square feet and was accomplished in 38 buildings which averaged 21,600 square feet per building. Only 27 buildings were completed in 1982, but they averaged 29,700 square feet apiece. Gaithersburg and Rockville accounted for much of this space but significant amounts were added to North Bethesda and Bethesda.

**MONTGOMERY COUNTY NON-RESIDENTIAL CONSTRUCTION
1979 - 1983**

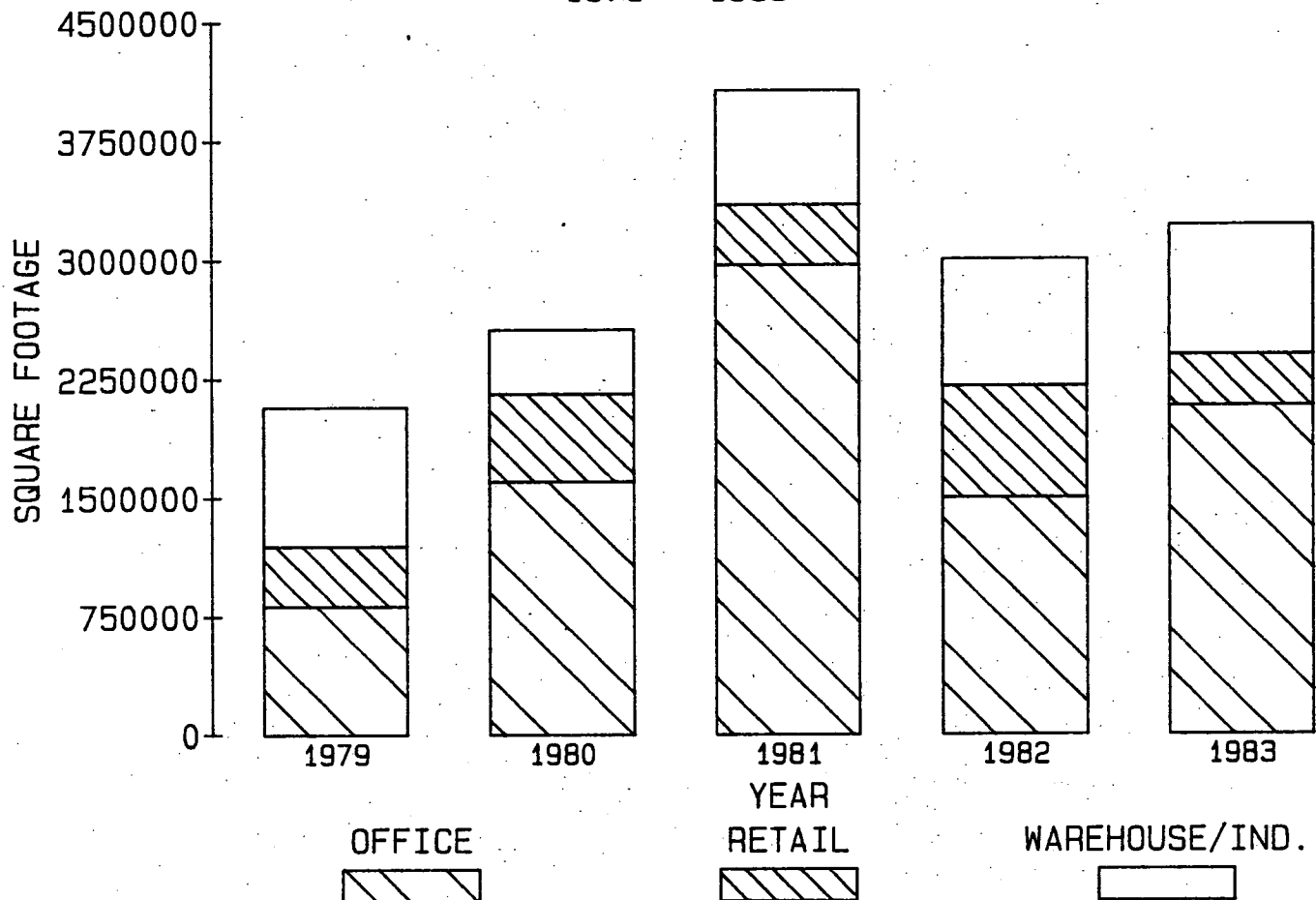


TABLE 17

**MONTGOMERY COUNTY SQUARE FEET NON-RESIDENTIAL CONSTRUCTION
1979-1983**

	Sq. Ft. Office	Sq. Ft. Retail	Sq. Ft. Warehouse/ Industrial/ Other	Sq. Ft. Total
1979	812,204	378,526	877,854	2,068,584
1980	1,598,158	554,174	404,924	2,557,256
1981	2,965,365	379,961	722,431	4,067,757
1982	1,496,592	702,878	800,948	3,000,418
1983	2,073,345	322,031	819,488	3,214,864
Total	8,945,664	2,337,570	3,625,645	14,908,879

Source: Montgomery County Planning Board, Research Division. Compiled from data provided by the State Department of Assessments and Taxation.

Employment

Employment statistics are difficult to monitor on a County basis. Maryland Department of Employment and Training issues reports that lump Montgomery County in with Prince George's and Charles Counties. The District of Columbia issues reports for the entire metropolitan area. Both these reporting systems have the advantage of being timely, though they are not specific for Montgomery County. The U. S. Census Bureau publishes County Business Patterns which is County specific. The U. S. Bureau of Economic Analysis (BEA) also estimates County level employment data. BEA is more inclusive of total employment than County Business Patterns but may overstate employment sectors because of its statistical procedures. As a rule, we use County Business Patterns as our measure and add to it federal employment supplied by the National Capital Planning Commission and estimates of state government, local government and self-employed persons.

County Business Patterns has just released its 1982 report for the County. For the region, 1982 was not a good year in employment terms. (Despite the notion that our region is immune from recession, employment went down by some 13,000 jobs between 1981 and 1982.) For the County, 1982 was a year of marginal increased employment regardless of the regional decline and a decline of federal employment in the County. On the basis of County Business Patterns, the County gained some 200 jobs. BEA suggested that Montgomery County actually increased employment by 1,800 new jobs in 1981-1982. These estimates, however, are not a reflection of the economic upswing of 1983-1984.

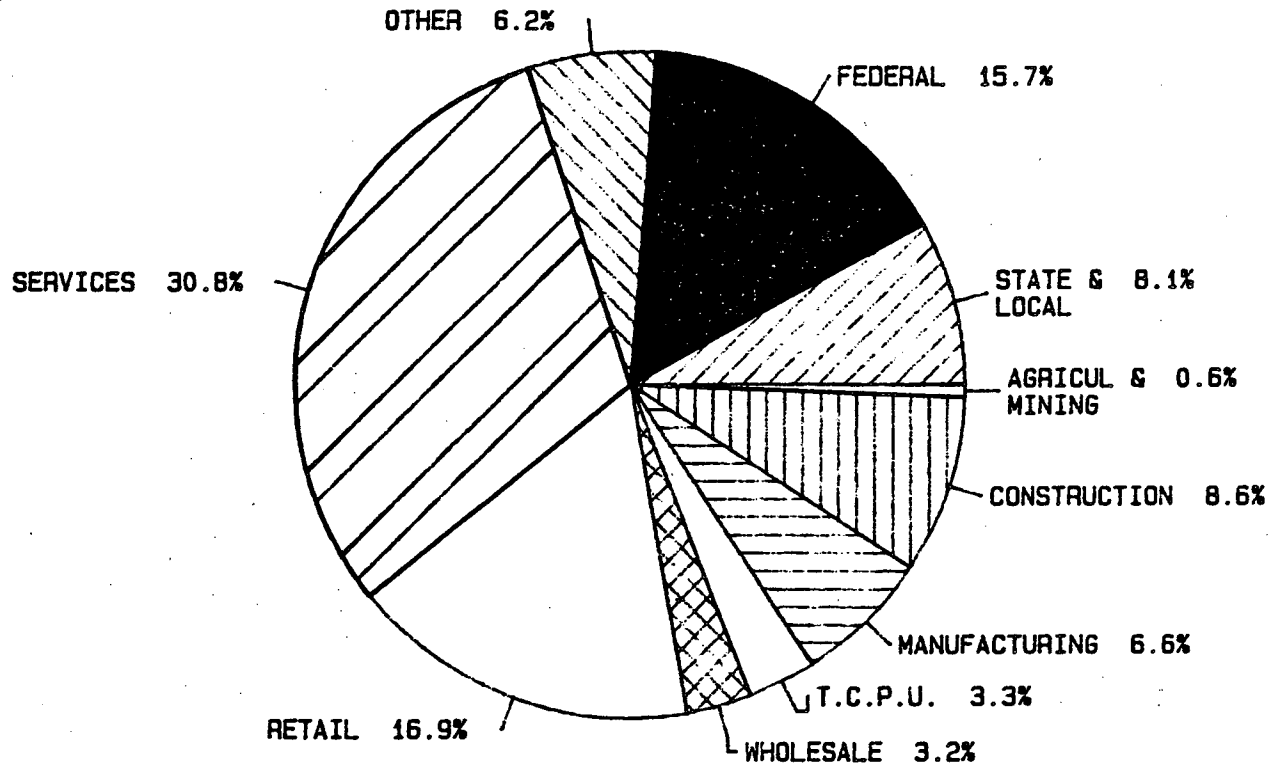
In order to estimate Montgomery County's at-place employment from the Maryland Department of Employment and Training data, it is necessary to establish the County's relationship to that data. Between 1980 and 1981, Montgomery absorbed a little more than 70% of the employment growth going to the Maryland counties in the Washington area. In that same period, it represented 59% of that total employment. If these relationships are being maintained, Montgomery County employment may have reached 330,000 by March of 1984. This would represent an average growth of 7,000 jobs per year since 1980. Recall however, that 1982 was a year of marginal employment growth. This means that there was substantial growth between March 1983 and March 1984. It is likely that the County gained more than 15,000 jobs during that one-year period.

Should the above numbers hold up as more statistics are compiled and released, a revision of the 1985 employment forecast will be necessary. The Council of Governments' Round 3 forecast

would indicate 331,000 jobs in the County in 1985. The actual pace of employment growth is approximately one year ahead of the forecast. Given the current strength of the economy, it is very likely that the County will gain more than 1,000 jobs between March 1984 and March 1985.

On the basis of Maryland Department of Employment and Training data, it is possible to determine that the long term trend toward a service oriented economy is continuing. Between 1980 and 1984 the Maryland counties in the Washington SMSA gained more than 38,000 jobs. Of this increase, 29,000 jobs were added in the service sector. In other words, three out of every four new jobs were service oriented. Montgomery County's service sector, with more than 89,000 employees, is strongly oriented toward business and professional services such as computer programming, data processing, research and development, engineering, architecture, and medical services.

MONTGOMERY COUNTY AT-PLACE EMPLOYMENT MARCH 1982



MONTGOMERY COUNTY AT-PLACE EMPLOYMENT
MARCH 1980 - MARCH 1982

Major Industrial Sectors	1980	1982	Increase/ (Decrease) Between 1980 & 1982
Agriculture & Mining*1	1,504	1,807	303
Construction*1	27,131	24,718	(2,413)
Manufacturing*1	17,570	19,072	1,502
Transportation, Communication & Public Utilities*1	8,458	9,492	1,034
Wholesale Trade*1	8,626	9,098	472
Retail Trade*1	51,240	48,663	(2,577)
Finance, Insurance & Real Estate*1	21,622	22,418	796
Services*1	79,150	88,823	9,673
Other*2 (Self employed nonclassifiable)	16,200	18,000	1,800
Federal*3 (Including military)	47,222	45,227	(1,995)
State and Local*4	23,000	23,200	200
Total At-Place Employment	301,723	310,518	8,795

*1 County Business Patterns, U.S. Department of Commerce Bureau of the Census.

*2 County Business Patterns, M-NCPPC estimate.

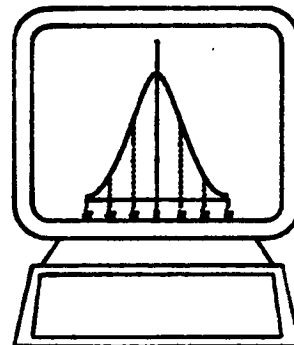
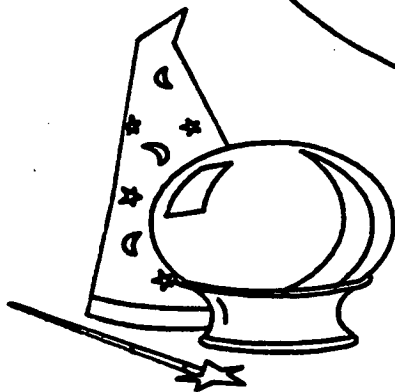
*3 National Capital Planning Commission.

*4 Montgomery County Planning Board, Research Division estimate, Montgomery County and State of Maryland employment data.

1984
COMPREHENSIVE

FORECASTS

PLANNING POLICIES
REPORT



FORECAST

Forecasting is an exercise of predicting the future. In its essential form, astrologers and crystal ball gazers have identical occupations. Our methodology is rooted in more earthly events but is still a leap of faith into uncharted territory.

To minimize our risks of error, we start with a recognition that Montgomery County is inextricably tied to the Washington Region. We are an active participant in the Washington Council of Government's (COG) Cooperative Forecasting program. This process is in its third round of forecasts. These forecasts were approved last year. The regional forecast set the parameters for the County forecast. The County's expected share of growth is presented to the forecasting subcommittee of COG and agreed to by the other jurisdictions. Even further assurance is gained by having a forecast range labeled as low, intermediate, and high, each of which has an implicit scenario for the region's future.

Given the volatility of the housing market, long-term year-by-year forecasts would be sheer folly. The future is grouped in our forecasting process in five-year intervals. One may interpolate the five-year forecast to annual rates for comparison to actual construction, but significant variance would be expected. Cumulatively, at the end of a five-year period, the forecasts should match actual completions.

The 1983 housing surge, which is continuing through 1984, will be analyzed during the upcoming year to determine the necessity of forecast revisions. The 1980 through 1982 markets were suppressed by the national recession, the uncertain outlook for federal employees, and high mortgage interest rates. The 1983 boom of 6,153 units comprised pent-up demand existing residents and the demand from new residents, immigrants attracted by expanded job opportunity. To the extent that the demand is from existing residents, there is a finite limit to these high construction rates.

In April of 1984, a Census Update survey of 17,000 randomly selected households was conducted to determine precisely who is moving into the County. It will determine the trend of mobility household formation and family size. All of these are critical to future forecasts. In the absence of this fresh data, there will not be any changes to the COG Round 3 forecast first printed in the 1983 Comprehensive Planning Policies report. Rather than make an a priori revision to population, household and employment forecasts, they will remain the same until next year.

As noted in the status chapter, at least until 1985, the County is tending toward the high forecast. In a short time, 1985 will be upon us and the forecast range will narrow to a single number. At that time revisions to the 1990 forecasts may be appropriate.

Dwelling Unit Forecast

Construction during 1980 through 1983 was 19,513 dwelling units. This is slightly ahead of the interpolated intermediate forecast 1980-1983 (18,880 dwelling units) and slightly below the high forecast 1980-1983 (20,720). Given the magnitude of growth anticipated for 1984, it is likely that the actual growth will slightly exceed the high forecast range. It is possible that the intermediate forecast for 1990 will be revised upward during the coming year, but the high forecast may not need revision. While the economy is recovering earlier than expected, the forecast may be in line with the actual magnitude of growth by 1990. The high forecast shows a higher level of growth for the latter 5 years of the decade over the first 5-year period. This is consistent with the COG Round 3 model assumption that the Region's economy would accelerate by mid-decade. The high forecast is anticipating 25,000 dwelling units for 1980-1984 and 30,000 dwelling units for 1985-1989. The actual 1980-1984 growth will be approximately 27,000 dwelling units.

If forecasting on a County-wide level is hazardous, then forecasting on a subcounty level is doubly hazardous. Numbers are more sensitive to the whims of local markets. The success or failure of particularly large projects will make the forecaster a hero or a bum. The following charts and text illustrate for subareas of the County how actual development performed compared to the forecast, the mix of structure type of new construction. A brief market orientation to the area is given as well as short-term prognosis for future development. Each year on the chart represents the activity which occurred during that year (January 1 through December 31). The period 1980-1984 is a five-year span which ends December 31, 1984. The forecast lines are the result of dividing the five-year forecast and cumulating the result.

TABLE 18

MONTGOMERY COUNTY DEVELOPMENT FORECAST
 ROUND 3 COG COOPERATIVE FORECAST

Persons					
	1980	1985	1990	1995	2000
	-----	-----	-----	-----	-----
High		620,000	660,000	719,000	777,600
Intermediate	579,000	598,300	634,400	669,600	700,000
Low		580,600	592,700	607,600	623,100

Households					

High		232,700	262,700	292,700	317,700
Intermediate	206,793	230,400	252,900	273,200	288,200
Low		228,200	243,200	256,500	265,700

Employment					

High			375,000	410,000	435,000
Intermediate	302,000	331,000	360,000	385,000	410,000
Low			340,000	355,000	370,000

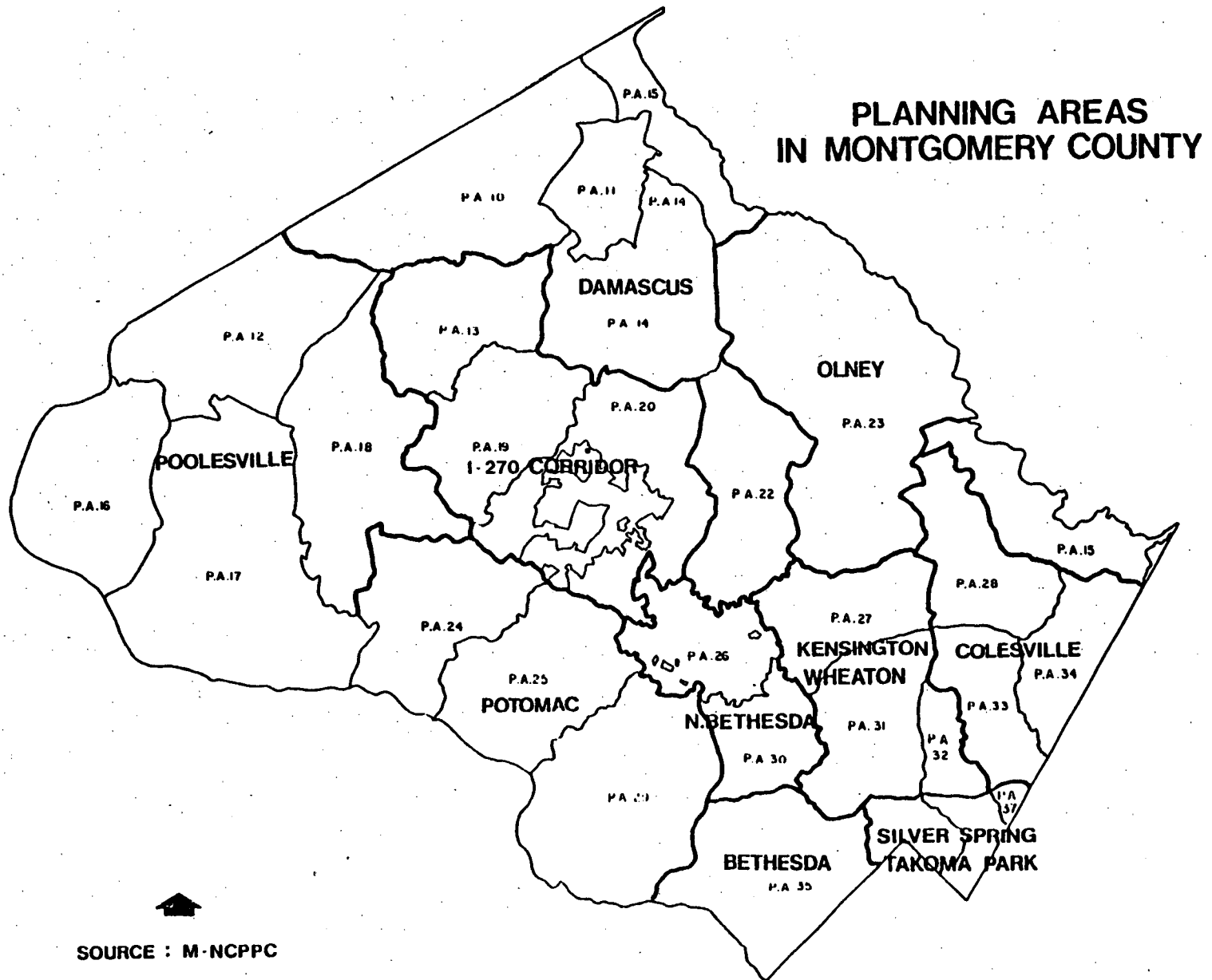


TABLE 19

POPULATION BY AGE GROUPS AND BY GROUPED PLANNING AREAS
1980 CENSUS - 1990 INTERMEDIATE FORECAST

	Bethesda/ Silver Spring (PA 35,36,37)	N.Bethesda/ Rockville (PA 26,30)	Kensington/ Wheaton (PA 27,31,32)	I-270 Corridor (PA 13,19, 20,21)	Colesville (PA 28,33,34)	Potomac (PA 24,25,29)	Olney (PA 23)	Damascus Poolesville (PA 10,11,12 14,15,16,17 18,22)	Total County
Household Population 1980	133,239	74,182	154,438	73,339	46,242	48,375	16,918	26,687	573,420
Percent Age 65+	13.8	7.4	9.8	4.0	7.6	4.2	4.2	5.8	8.7
Percent Age 45-64	24.0	23.0	24.2	12.8	25.2	24.2	16.0	12.8	22.1
Percent Age 35-44	12.8	13.8	12.4	14.3	14.8	18.8	20.9	16.7	14.1
Percent Age 25-34	18.0	17.1	17.0	25.9	13.7	10.2	14.5	16.8	17.4
Percent Age 15-24	15.1	18.0	17.5	17.8	18.5	16.1	15.1	15.8	16.8
Percent Age 5-15	11.6	15.0	13.6	16.5	15.6	21.3	22.8	19.7	15.1
Percent Age 0-4	4.7	5.7	5.4	8.7	4.7	5.2	6.5	7.5	5.8
Household Population 1990	128,245	73,086	143,743	118,893	60,310	52,945	20,665	30,925	628,812
Percent Age 65+	13.9	10.1	12.3	5.2	9.6	7.6	5.9	6.5	9.9
Percent Age 45-64	24.3	26.1	25.5	20.0	26.7	30.5	27.7	25.1	24.9
Percent Age 35-44	14.5	15.5	15.6	18.4	14.1	13.7	15.5	16.7	15.6
Percent Age 25-34	17.2	15.6	14.8	18.8	16.5	13.9	14.6	14.9	16.2
Percent Age 15-24	12.4	14.8	14.0	15.3	14.1	15.9	16.5	15.3	14.3
Percent Age 5-15	10.2	11.9	11.9	14.7	11.0	11.0	12.0	13.3	12.0
Percent Age 0-4	7.7	6.1	5.9	7.5	7.9	7.5	7.9	8.2	7.1

Note: Totals do not always add to 100% due to rounding.

Source: Montgomery County Planning Board Research Division, 1983.

ROUND 3 COOPERATIVE FORECAST
HIGH SCENARIO
MONTGOMERY COUNTY

Planning Areas	POPULATION				HOUSEHOLD			
	1980	1985	1990	1995	1980	1985	1990	1995
SILVER SPRING	54,600	55,000	54,700	56,100	23,852	24,602	25,702	26,902
36 Silver Spring	29,700	31,200	32,200	33,800	14,015	14,565	15,515	16,515
37 Takoma Park	24,900	23,800	22,500	22,300	9,837	10,037	10,187	10,387
BETHESDA	80,400	77,800	77,900	80,400	31,934	33,334	34,934	36,234
35 Bethesda	80,400	77,800	77,900	80,400	31,934	33,334	34,934	36,234
NORTH BETHESDA	75,800	75,900	77,100	79,700	26,514	28,764	31,414	33,464
26 Rockville	45,300	43,200	41,600	40,600	14,788	15,588	16,338	16,588
30 N. Bethesda	30,500	32,700	35,500	39,100	11,726	13,176	15,076	16,876
KENSINGTON-WHEATON	155,350	150,000	146,500	149,700	55,102	57,552	59,952	62,502
27 Aspen Hill	47,750	46,600	46,200	48,100	16,703	18,053	19,453	20,753
31 Wheaton	75,500	72,300	70,100	71,100	26,733	27,533	28,283	29,283
32 Kemp Mill	32,100	31,100	30,200	30,500	11,666	11,966	12,216	12,466
I-270 CORRIDOR	73,600	101,700	128,300	158,300	26,928	36,853	48,828	61,708
13 Clarksburg	1,200	1,200	1,100	1,300	371	396	421	551
19 Germantown	10,400	21,600	35,300	52,300	3,733	7,233	12,333	18,783
20/21 Gaithersburg	62,000	78,900	91,900	104,500	22,824	29,224	36,074	42,374
COLESVILLE	46,900	56,500	66,000	76,100	15,489	18,989	23,689	28,289
28 Cloverly	11,400	12,500	13,600	15,500	3,298	3,848	4,548	5,348
33 White Oak	26,000	26,700	28,800	30,900	8,921	9,871	11,071	12,071
34 Fairland	9,500	17,300	23,600	29,700	3,270	5,270	8,070	10,870
POTOMAC	48,550	52,800	55,100	59,800	14,210	16,760	19,460	22,110
24 Darnestown	4,800	5,800	6,800	7,900	1,334	1,884	2,384	2,884
25 Travilah	5,850	7,000	8,300	9,700	1,717	2,067	2,917	3,817
29 Potomac	37,900	40,000	40,000	42,200	11,159	12,809	14,159	15,409
OLNEY	17,100	19,700	21,500	24,100	4,777	5,777	6,977	8,227
23 Olney	17,100	19,700	21,500	24,100	4,777	5,777	6,977	8,227
DAMASCUS	19,300	23,300	26,100	29,000	5,748	7,738	9,328	10,738
10 Bennett	3,400	3,300	3,200	3,300	1,030	1,095	1,115	1,215
11 Damascus	3,800	5,800	6,900	7,200	1,140	1,925	2,700	3,000
14 Goshen	4,000	5,000	6,000	7,200	1,220	1,670	1,935	2,345
15 Patuxent	3,700	3,700	3,600	3,800	1,130	1,220	1,300	1,400
22 Rock Creek	4,400	5,500	6,400	7,500	1,228	1,828	2,278	2,778
POOLESVILLE	7,400	7,300	6,800	6,700	2,239	2,324	2,409	2,519
12 Dickerson	1,600	1,600	1,500	1,500	473	498	523	553
16 Martinsburg	500	500	500	600	157	177	197	222
17 Poolesville	4,100	4,000	3,600	3,500	1,249	1,269	1,289	1,319
18 Lower Seneca	1,200	1,200	1,200	1,100	360	380	400	425
TOTAL COUNTY	579,000	620,000	660,000	719,900	206,793	232,693	262,693	292,693

Source: Montgomery County Planning Board, Research Division.

TABLE 21
ROUND 3 COOPERATIVE FORECAST
INTERMEDIATE SCENARIO
MONTGOMERY COUNTY

Planning Areas	POPULATION				HOUSEHOLD			
	1980	1985	1990	1995	1980	1985	1990	1995
SILVER SPRING	54,600	53,400	53,300	53,500	23,852	24,502	25,002	25,552
36 Silver Spring	29,630	30,300	31,000	31,800	14,015	14,515	14,915	15,415
37 Takoma Park	24,950	23,100	22,300	21,700	9,837	9,987	10,087	10,137
BETHESDA	80,400	75,600	76,800	78,700	31,934	33,234	34,284	35,284
35 Bethesda	80,400	75,600	76,800	78,700	31,934	33,234	34,284	35,284
NORTH BETHESDA	75,800	73,600	74,700	77,200	26,514	28,564	30,414	32,264
26 Rockville	45,300	42,000	41,300	41,900	14,788	15,538	16,188	17,038
30 N. Bethesda	30,500	31,600	33,400	35,300	11,726	13,026	14,226	15,226
KENSINGTON-WHEATON	155,350	145,800	144,600	145,900	55,102	57,352	59,052	60,802
27 Aspen Hill	47,750	45,200	45,100	46,000	16,703	17,953	18,953	19,853
31 Wheaton	75,500	70,400	69,500	69,900	26,733	27,483	27,983	28,683
32 Kemp Mill	32,100	30,200	30,000	30,000	11,666	11,916	12,116	12,266
I-270 CORRIDOR	73,600	97,400	119,200	135,100	26,928	36,149	45,709	53,589
13 Clarksburg	1,200	1,100	1,100	1,300	371	392	402	482
19 Germantown	10,400	20,000	30,600	39,800	3,733	6,833	10,933	14,833
20/21 Gaithersburg	62,000	76,300	87,500	94,000	22,824	28,924	34,374	38,274
COLESVILLE	46,900	54,100	61,000	67,700	15,489	18,689	22,089	25,289
28 Cloverly	11,400	12,000	13,100	14,400	3,298	3,798	4,398	4,998
33 White Oak	26,000	25,700	27,600	29,800	8,921	9,771	10,671	11,571
34 Fairland	9,500	16,400	20,300	23,500	3,270	5,120	7,020	8,720
POTOMAC	48,550	50,400	53,000	56,300	14,210	16,462	18,512	20,412
24 Darnestown	4,800	5,500	6,300	7,000	1,334	1,835	2,235	2,585
25 Travilah	5,850	6,400	7,600	9,000	1,717	1,968	2,418	2,968
29 Potomac	37,900	38,500	39,100	40,500	11,159	12,659	13,859	14,859
OLNEY	17,100	18,900	20,900	23,100	4,777	5,677	6,777	7,877
23 Olney	17,100	18,900	20,900	23,100	4,777	5,677	6,777	7,877
DAMASCUS	19,300	22,100	24,300	25,600	5,748	7,479	8,724	9,554
10 Bennett	3,400	3,200	3,100	3,000	1,030	1,080	1,105	1,130
11 Damascus	3,800	5,400	6,400	6,700	1,140	1,840	2,320	2,510
14 Goshen	4,000	4,800	5,400	5,900	1,220	1,620	1,940	2,200
15 Patuxent	3,700	3,500	3,600	3,600	1,130	1,210	1,280	1,335
22 Rock Creek	4,400	5,200	5,800	6,400	1,228	1,729	2,079	2,379
POOLESVILLE	7,400	7,000	6,600	6,300	2,239	2,290	2,335	2,375
12 Dickerson	1,600	1,500	1,400	1,300	473	493	503	513
16 Martinsburg	500	500	500	500	157	167	177	187
17 Poolesville	4,100	3,900	3,600	3,400	1,249	1,260	1,270	1,280
18 Lower Seneca	1,200	1,100	1,100	1,100	360	370	385	395
TOTAL COUNTY	579,000	598,300	634,400	669,600	206,793	230,398	252,898	272,098

Source: Montgomery County Planning Board, Research Division.

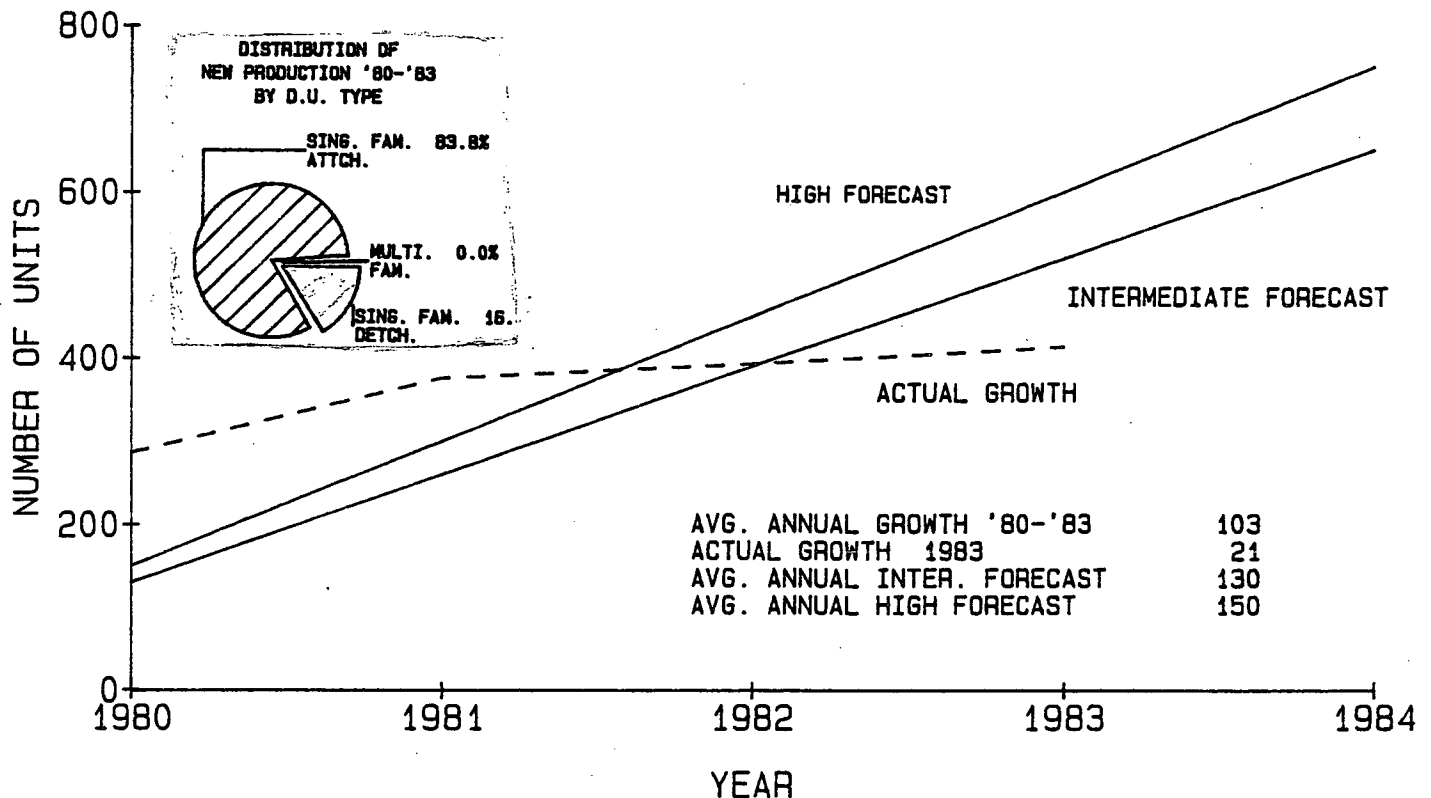
ROUND 3 COOPERATIVE FORECAST
LOW SCENARIO
MONTGOMERY COUNTY

Planning Areas	POPULATION				HOUSEHOLD			
	1980	1985	1990	1995	1980	1985	1990	1995
SILVER SPRING	54,600	52,100	51,900	51,700	23,852	24,412	24,712	25,062
36 Silver Spring	29,630	29,300	30,000	30,400	14,015	14,463	14,715	15,015
37 Takoma Park	24,950	22,600	21,900	21,300	9,837	9,947	9,997	10,047
BETHESDA	80,400	73,600	73,700	75,700	31,934	33,134	33,884	34,884
35 Bethesda	80,400	73,600	73,700	75,700	31,934	33,134	33,884	34,884
NORTH BETHESDA	75,800	72,600	70,700	70,200	26,514	28,414	29,464	30,264
26 Rockville	45,300	41,600	39,900	38,700	14,788	15,538	16,088	16,338
30 N. Bethesda	30,500	31,000	30,800	31,500	11,726	12,876	13,376	13,926
KENSINGTON-WHEATON	155,350	141,700	137,700	136,400	55,102	56,852	57,752	58,602
27 Aspen Hill	47,730	43,800	42,000	41,700	16,703	17,603	18,003	18,453
31 Wheaton	75,500	68,600	67,000	66,200	26,733	27,383	27,783	28,083
32 Kemp Mill	32,100	29,300	28,700	28,500	11,666	11,866	11,966	12,066
I-270 CORRIDOR	73,600	96,200	109,200	119,200	26,928	35,593	42,248	48,003
13 Clarksburg	1,200	1,100	1,000	1,000	371	386	391	396
19 Germantown	10,400	19,300	25,100	31,300	3,733	6,583	8,933	11,583
20/21 Gaithersburg	62,000	75,800	83,100	86,900	22,824	28,624	32,924	36,024
COLESVILLE	46,900	50,700	53,700	56,700	15,489	18,339	20,539	22,439
28 Cloverly	11,400	11,300	11,700	12,200	3,298	3,748	4,148	4,548
33 White Oak	26,000	24,000	24,800	25,900	8,921	9,621	10,221	10,771
34 Fairland	9,500	15,400	17,200	18,600	3,270	4,970	6,170	7,120
POTOMAC	48,550	47,900	48,900	50,800	14,210	16,260	17,910	19,410
24 Darnestown	4,800	5,300	5,800	6,000	1,334	1,784	2,084	2,284
25 Travilah	5,850	6,000	6,700	7,600	1,717	1,917	2,267	2,667
29 Potomac	37,900	36,600	36,400	37,200	11,159	12,559	13,559	14,459
OLNEY	17,100	17,900	18,700	19,000	4,777	5,577	6,377	6,977
23 Olney	17,100	17,900	18,700	19,000	4,777	5,577	6,377	6,977
DAMASCUS	19,300	21,000	21,900	21,900	5,748	7,288	8,063	8,488
10 Bennett	3,400	3,100	2,900	2,900	1,030	1,063	1,083	1,103
11 Damascus	3,800	5,300	5,700	5,700	1,140	1,813	2,093	2,203
14 Goshen	4,000	4,300	4,800	4,900	1,220	1,540	1,760	1,890
15 Patuxent	3,700	3,500	3,400	3,200	1,130	1,190	1,245	1,260
22 Rock Creek	4,400	4,900	5,100	5,200	1,228	1,678	1,878	2,028
POOLESVILLE	7,400	6,800	6,300	6,000	2,239	2,274	2,294	2,314
12 Dickerson	1,600	1,300	1,400	1,300	473	488	493	498
16 Martinsburg	500	500	500	500	157	162	167	172
17 Poolesville	4,100	3,700	3,400	3,200	1,249	1,234	1,259	1,264
18 Lower Seneca	1,200	1,100	1,000	1,000	360	370	375	380
TOTAL COUNTY	579,000	580,600	592,700	607,600	206,793	228,143	243,243	256,443

Source: Montgomery County Planning Board, Research Division.

CHART 12

SILVER SPRING CUMULATIVE DWELLING UNIT GROWTH
COMPARED TO THE FORECAST
9TH FASTEST GROWING COMPARED TO OTHER AREAS



Silver Spring/Takoma Park

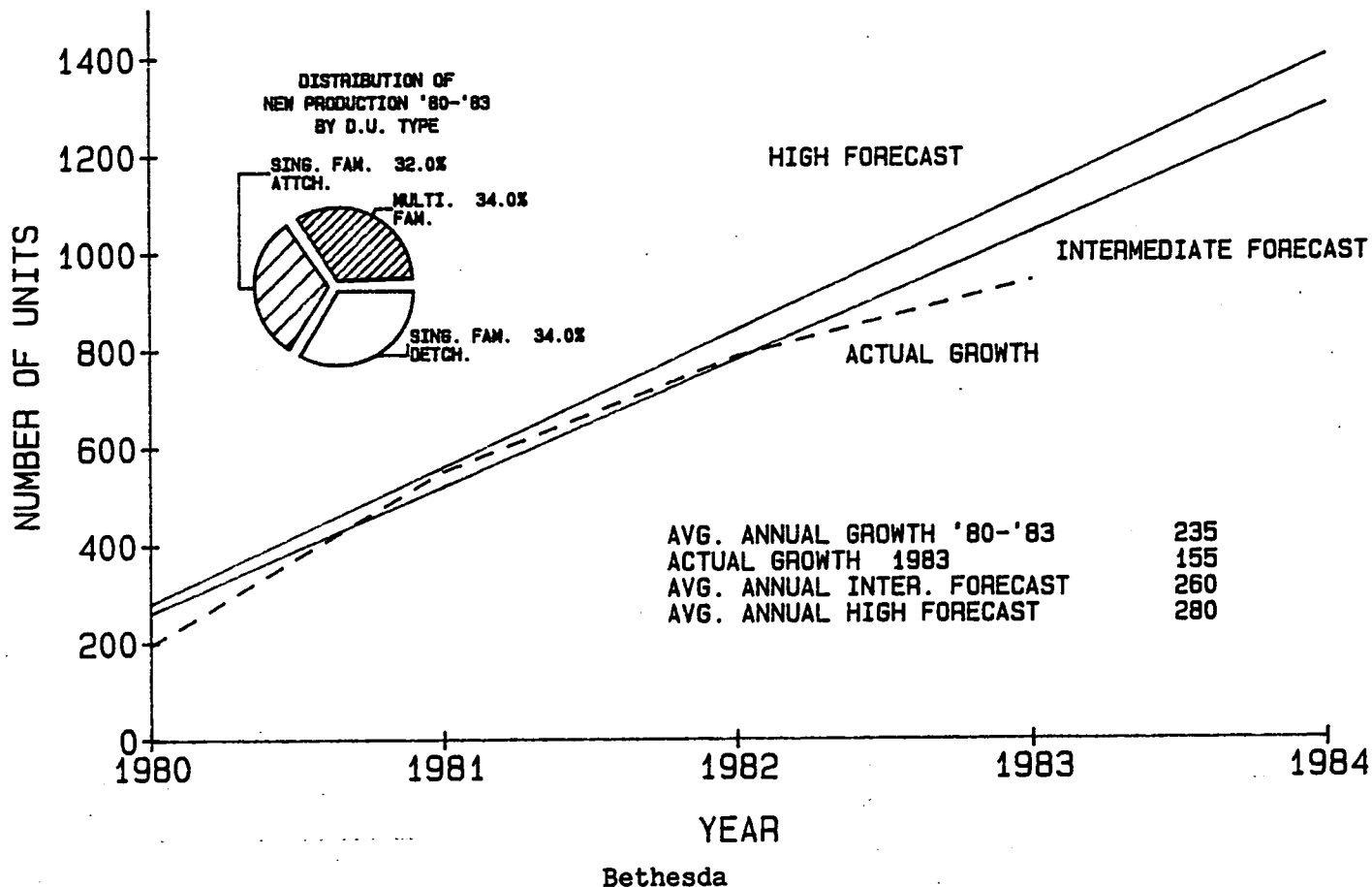
This area was one of the first in the County to develop. There are very few vacant parcels remaining. Large scale new construction will require redeveloping existing developed sites. Over 60 percent of all housing in this area is rental. This is the highest percentage of non-ownership housing in the County. Correspondingly, Silver Spring/Takoma Park has the highest percentage of single person households and the lowest median household income.

Dwelling unit growth during 1984 will not exceed the 5-year intermediate forecast. In fact, housing growth in the Silver Spring/Takoma Park area has been minimal. This area ranks last in housing production.

Townhouses are expected this year from a few scattered sites in the Silver Spring area. The largest project is Woodside Park, which is nearing completion of 32 units. All that can be expected further from this policy area is some single-family detached units on a few of the remaining scattered parcels. This area will not produce any significant number of units until high-rise construction becomes an economically feasible housing alternative.

CHART 13

BETHESDA CUMULATIVE DWELLING UNIT GROWTH
COMPARED TO THE FORECAST
6TH FASTEST GROWING COMPARED TO OTHER AREAS

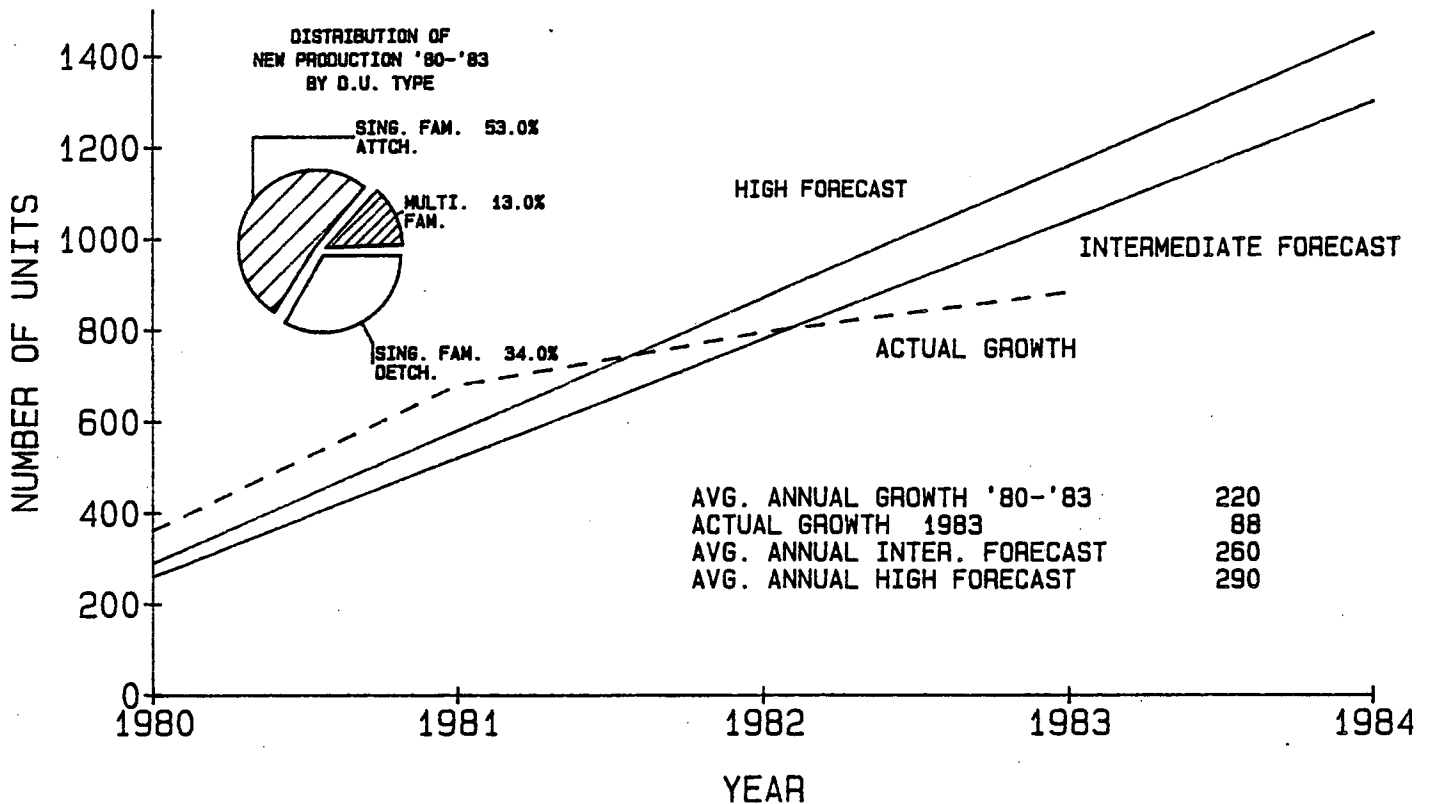


This is an established prestige suburban area whose high incomes almost rival Potomac's. It has a balanced housing inventory, providing 34.1 percent renter units, which are among the highest priced in the County. Its population is well educated, second only to Potomac in percent of college graduates. Like other close-in areas of the County, it contains a substantial number of single person households.

New units are being added to the housing inventory at a modest pace. The intermediate forecast will not be exceeded in 1984. The Bethesda area is undergoing redevelopment around Friendship Heights and Bethesda Metro stops. All of this will have a positive impact on the local economy and will encourage more residential development in what is already an attractive housing location. There is potential for new multi-family construction in the Central Business Districts but this will not occur until after 1984.

The Bethesda area is mostly developed. Some areas such as Glen Echo and Cabin John will continue to generate a few new single-family detached units in 1984. Developers are always finding one or two vacant lots that are buildable. In general, new construction in 1984 will occur on a number of scattered "in-fill" lots located throughout the planning area. A few large vacant parcels remain undeveloped near Pooks Hill and Chevy Chase Lake, but they will not generate new construction before the end of 1984.

NORTH BETHESDA CUMULATIVE DWELLING UNIT GROWTH
COMPARED TO THE FORECAST
7TH FASTEST GROWING COMPARED TO OTHER AREAS



North Bethesda

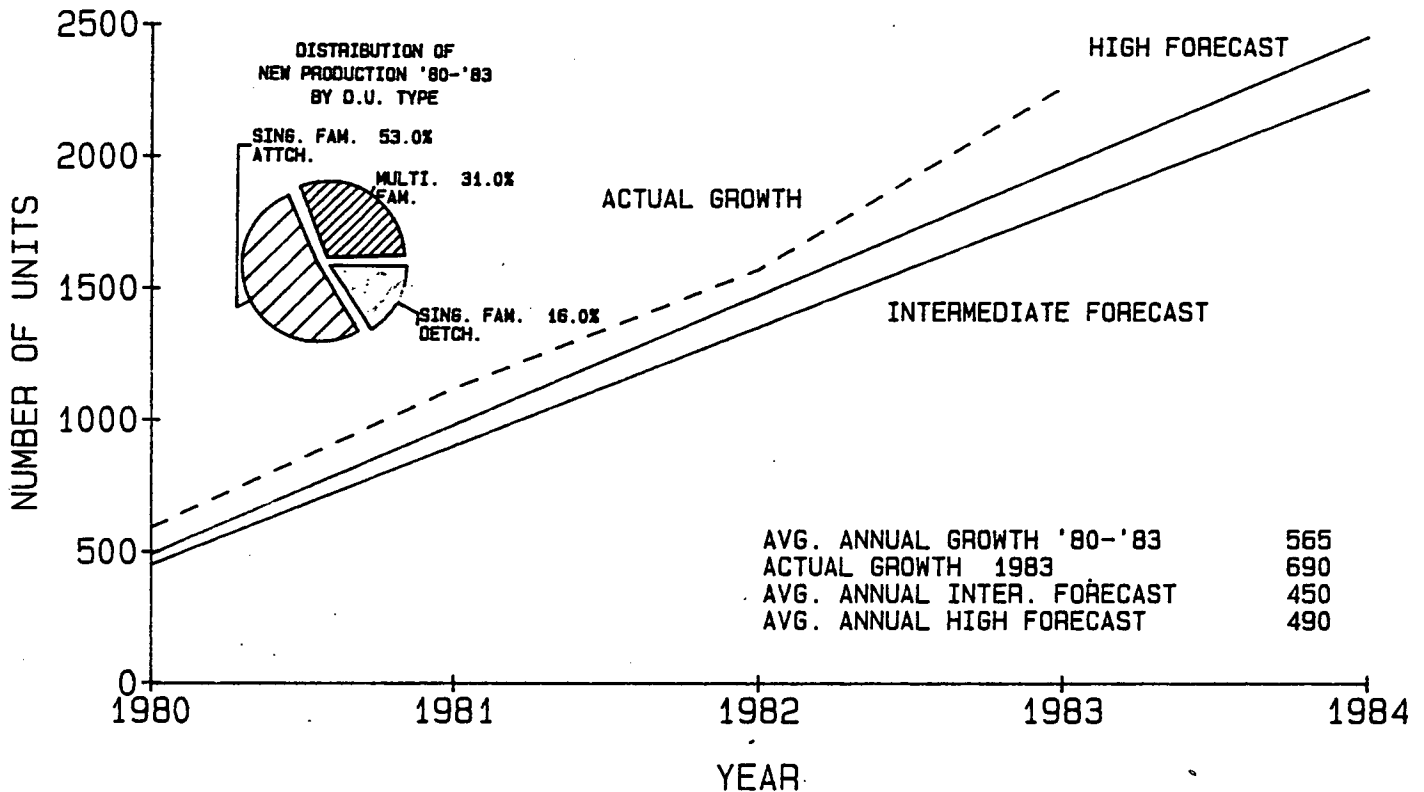
North Bethesda has a substantial rental inventory comprising 43 percent of all units. Median household income matches the County median despite the fact that the value of owner housing is above the County median. Median household income is lowered by the large number of renter households. The incidence of single person households is second only to Silver Spring/Takoma Park. Typically, single person households have lower incomes than larger households.

New housing construction has tapered off significantly in the last several years. The intermediate forecast will not be exceeded in this area by the end of the year 1984. The 4-year housing completions closely parallel the percent distribution of County-wide dwelling units growth (34 percent single-family, 50 percent townhouse, 16 percent multi-family).

Most of the new housing completions in 1984 will be townhouses coming from the Timberlawn and Grosvenor Mews subdivisions, located in the southern portion of the planning area. Some additional single-family detached units can be expected on what remains of the vacant land in the area. Otherwise, multi-family development will proceed sometime after 1984 on the vacant parcels of land located near the White Flint Metro station.

CHART 15

KENSINGTON/WHEATON CUMULATIVE DWELLING UNIT GROWTH
COMPARED TO THE FORECAST
3RD FASTEST GROWING COMPARED TO OTHER AREAS



Aspen Hill, Wheaton, Kemp Mill

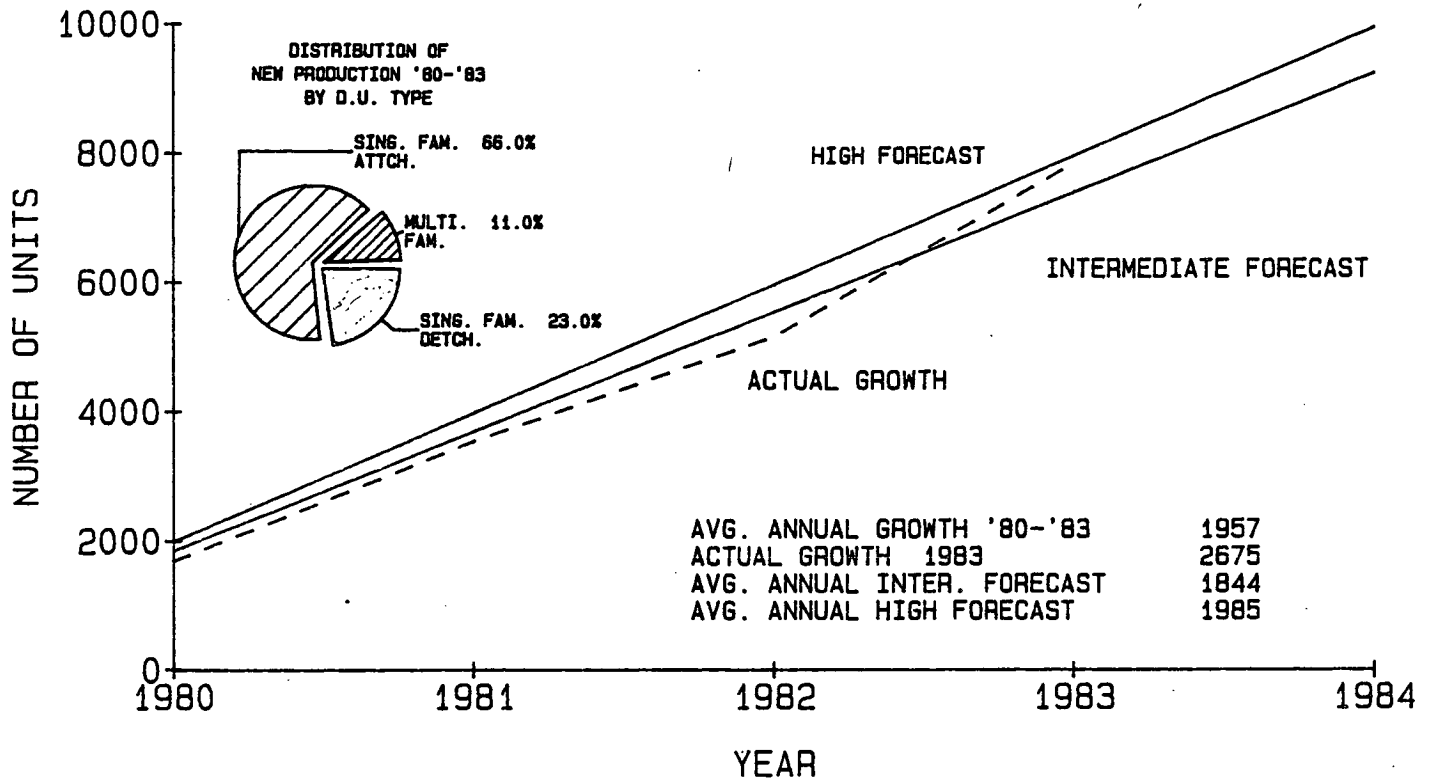
Wheaton and Kemp Mill are mature suburbs which experienced their greatest growth in the 1950's and 1960's. Both areas predominantly comprise small lot, single-family homes. The household income of Wheaton residents is below the County median. Kemp Mill has income higher than the County median. This may be attributed to the fact that what few rental units Kemp Mill has, are some of the most expensive in the County. Both of these areas have limited amounts of vacant land. Aspen Hill's development occurred in the 1960's and 1970's and still has vacant land toward its northern border.

The high forecast will be exceeded by the end of the forecast 1984 period. The unexpected surge in new completions occurred in Wheaton (Forest Estates, Glen Haven and Plaza Gardens Subdivisions) where developers have constructed townhouse projects. Aspen Hill would normally be expected to have the most housing completions within the Kensington/Wheaton area. Nineteen eighty three saw a dramatic change when Wheaton produced 590 new units while Aspen Hill accounted for only 60 units.

A substantial amount of development will continue through 1984. The Rossmoor development of 250 high-rise units will be completed during the first half of 1984. A second high-rise structure is under construction and should be ready for occupancy sometime this year. The subdivisions off Homecrest Road, next to Rossmoor, consisting of single-family/ townhouse units will be part of 1984 completions. B'nai Brith, also located near Rossmoor, has approximately 120 multi-family units under construction. This federally assisted housing project will not be ready for occupancy until 1985.

CHART 16

I-270 CORRIDOR CUMULATIVE DWELLING UNIT GROWTH
COMPARED TO THE FORECAST
THE FASTEST GROWING COMPARED TO OTHER AREAS



Gaithersburg Vicinity, Germantown and Clarksburg

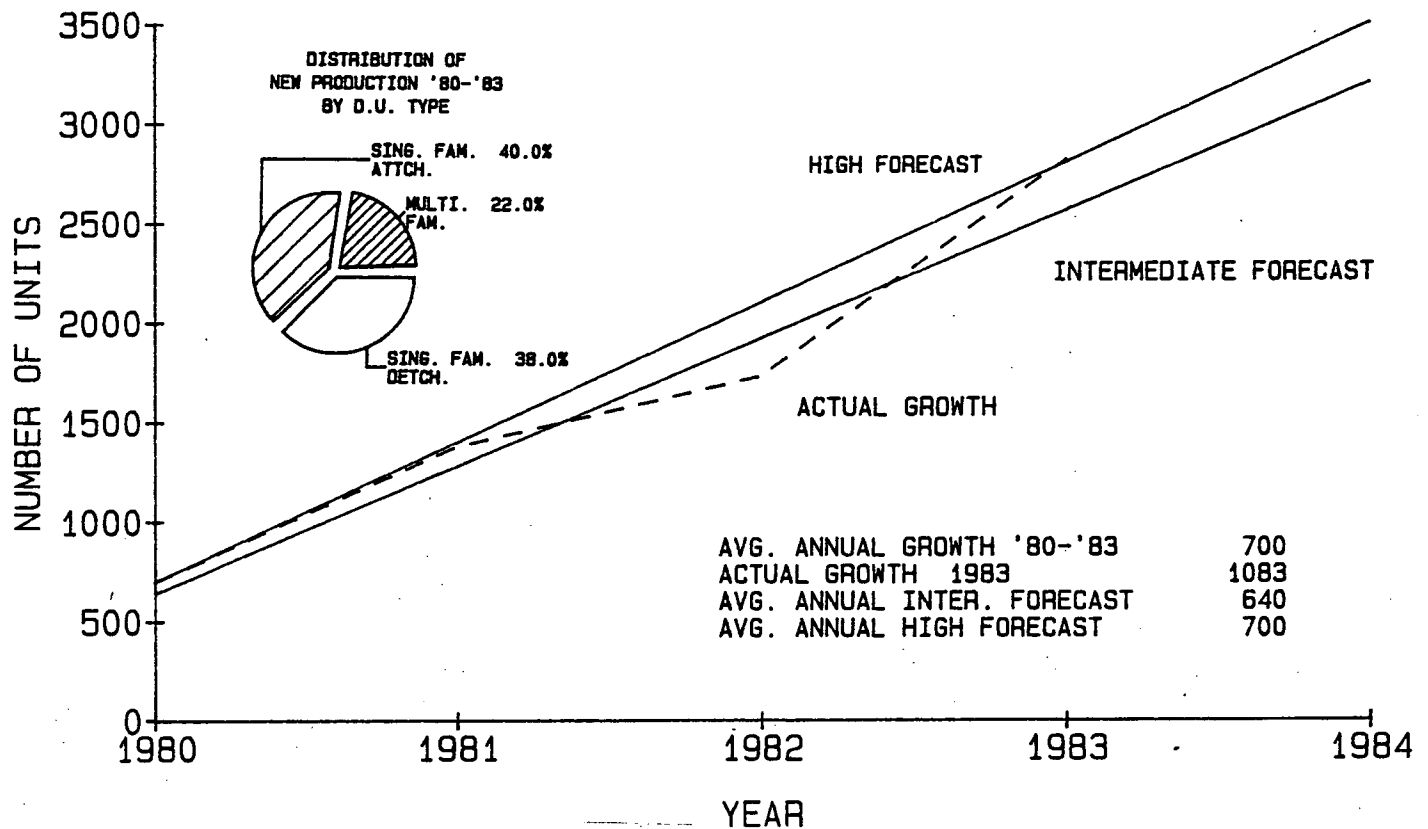
In 1970, the area outside of Gaithersburg City was farmland. By the start of 1980, the number of units had tripled from 8,516 units to 26,514. The pace of development has increased in the 1980's. It is a housing market dominated by first time home buyers.

The I-270 Corridor is the major growth area of the County. Over the past four years, 7,697 units were completed in the area out of 19,513 dwelling units County-wide. This exceeded the next fastest growing area (Fairland/White Oak) by more than 5,000 units. The intermediate forecast for the 1980-1984 will be exceeded. Even the high forecast may have slightly underestimated the current development boom. If the 1983 rate of construction of 2,676 units is matched or exceeded in 1984, which is fairly likely given the resurgence of industrial revenue bond (IRB) financed multi-family projects, the high forecast will be low by some 600 units.

As the market for new homes has shifted toward more affordable single-family attached units, the I-270 area has been uniquely suited to take advantage of this demand. Much of the new development is taking place on town sector zoned land in Montgomery Village and Germantown. The approved development plans include a substantial number of single-family attached units. Single-family attached homes have dominated new construction. As a percentage of total new construction, attached units in I-270 are even more predominant than in the total County.

Multi-family units will become a larger share of new construction. During 1984, the Stone Creek development of 240 units will be completed as will the 468-unit Rolling Hills project. If construction schedules hold, over 2,000 multi-family units will be completed by the end of 1985. This represents the bulk of 3,650 units being financed by HOC IRB's.

FAIRLAND/WHITE OAK CUMULATIVE DWELLING UNIT GROWTH
COMPARED TO THE FORECAST
2ND RANKING COMPARED TO ALL OTHER AREAS



Fairland, White Oak and Cloverly

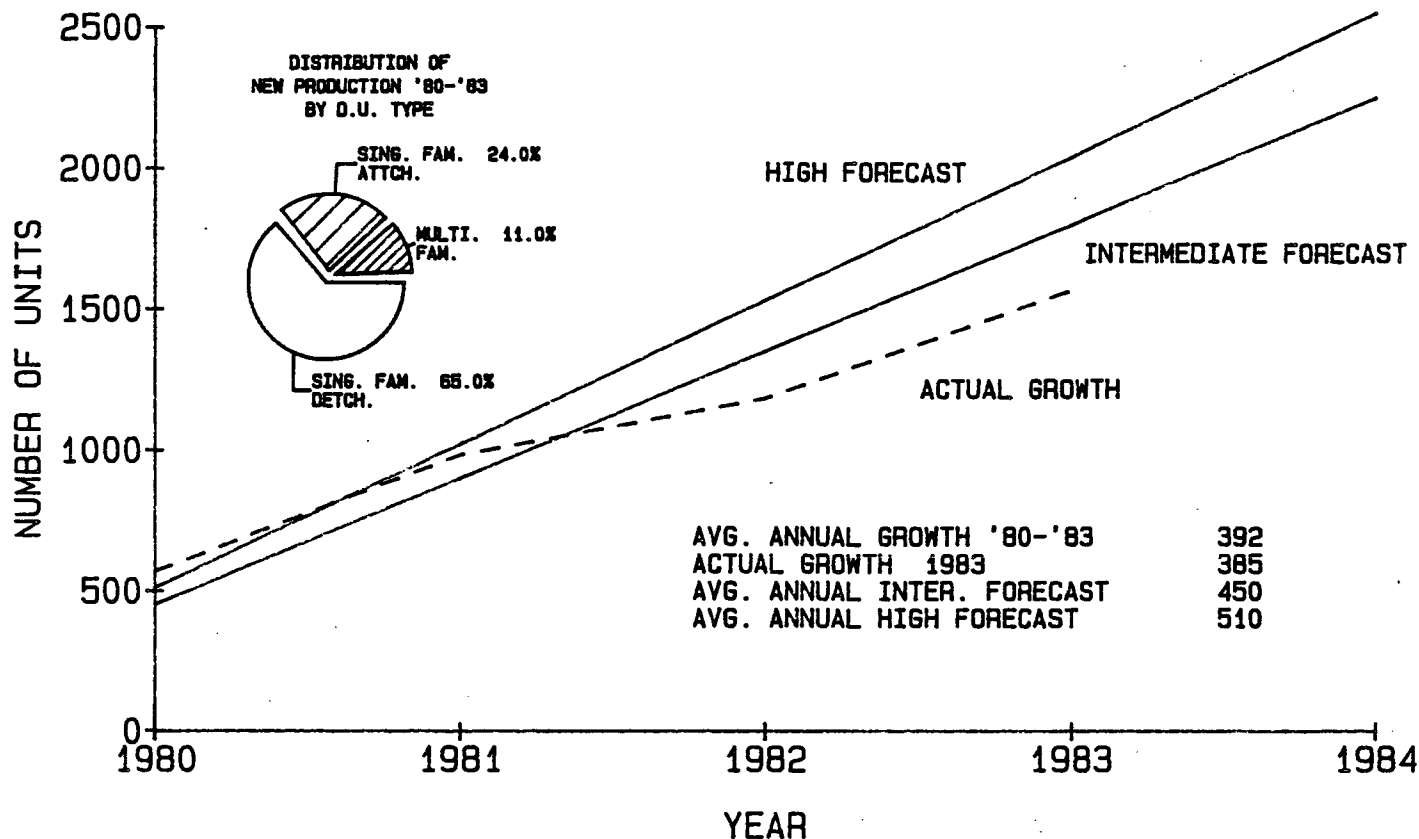
Fairland is adjacent to US 29 and is undergoing rapid development. It has a substantial amount of vacant land zoned for townhouse and garden apartment densities. White Oak started the 1980's mostly developed except for the area around US 29 and New Hampshire Avenue. Its median household income and housing values are significantly greater than the County as a whole. Cloverly is an environmentally sensitive area characterized by large lot single-family homes and significant tracts of vacant land.

The Fairland, White Oak, and Cloverly area is the second fastest growing area of the County. Between 1969 and 1979, the bulk of this area was under a building moratorium because of constraints in the sewer lines. Unlike other areas of the County, new construction was brought to almost a complete standstill. It is now in the midst of establishing itself as an area of substantial building activity. The five-year 1980-1984 intermediate forecast will be exceeded. Actual growth will be right along the lines of the high forecast.

Development in this area has not been as dominated by single-family attached units as the rest of the County. The percentage of single-family detached units constructed is slightly above the County average. In the future, more multi-family units can be expected. The Knightsbridge development of 256 units was completed during the first half of 1984. Montgomery Branch I of 243 units is virtually completed and should certainly be finished by the end of the year. Montgomery Paint Branch II is just beginning the construction of 117 units as is The Place (228 units). These latter two projects will be completed during 1985. All of these projects are being financed through HOC IRB's.

CHART 18

POTOMAC CUMULATIVE DWELLING UNIT GROWTH
COMPARED TO THE FORECAST
5TH FASTEST GROWING COMPARED TO OTHER AREAS



Darnestown, Travilah and Potomac

This area has the highest income and house values within the County. When ranked by income, Potomac is the wealthiest area followed by Darnestown and then by Travilah. The area is characterized by white rail-fenced estates of one to two acres. There are some areas of small lot development but they are the exception rather than the rule.

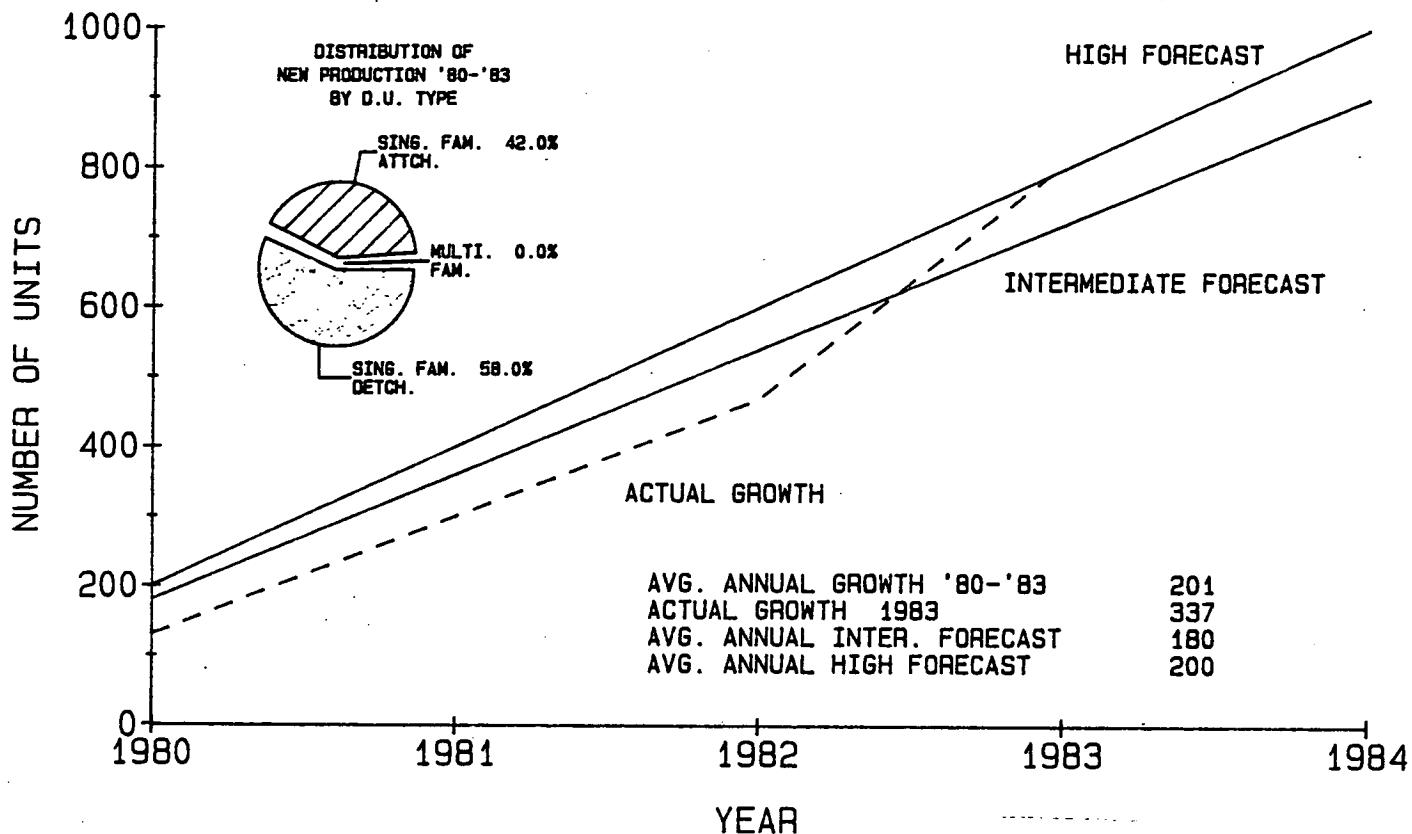
Actual development has been, and will continue to be, under the intermediate forecast through 1984. Potomac is one of the areas in the County where townhouses have not dominated new construction. The percentage of single-family detached units constructed is almost double the County average. Most of the new homes are expensive single-family residences located on large lots.

Geographically, the development in the Potomac area is scattered. There is, however, some concentrated townhouse development occurring in Inverness Forest off Seven Locks Road.

The Darnestown area is not publicly sewered except for a small area south of MD 28 known as Dufief Mill. This area is expected to account for most of new housing completions in 1984. Darnestown Knolls in Travilah will continue to produce single-family detached houses on half-acre lots. Spring Meadows, a subdivision west of Seneca Road, is currently under construction and will produce new units on two-acre lots and larger.

CHART 19

OLNEY CUMULATIVE DWELLING UNIT GROWTH COMPARED TO THE FORECAST 8TH FASTEST GROWING COMPARED TO OTHER AREAS



Olney

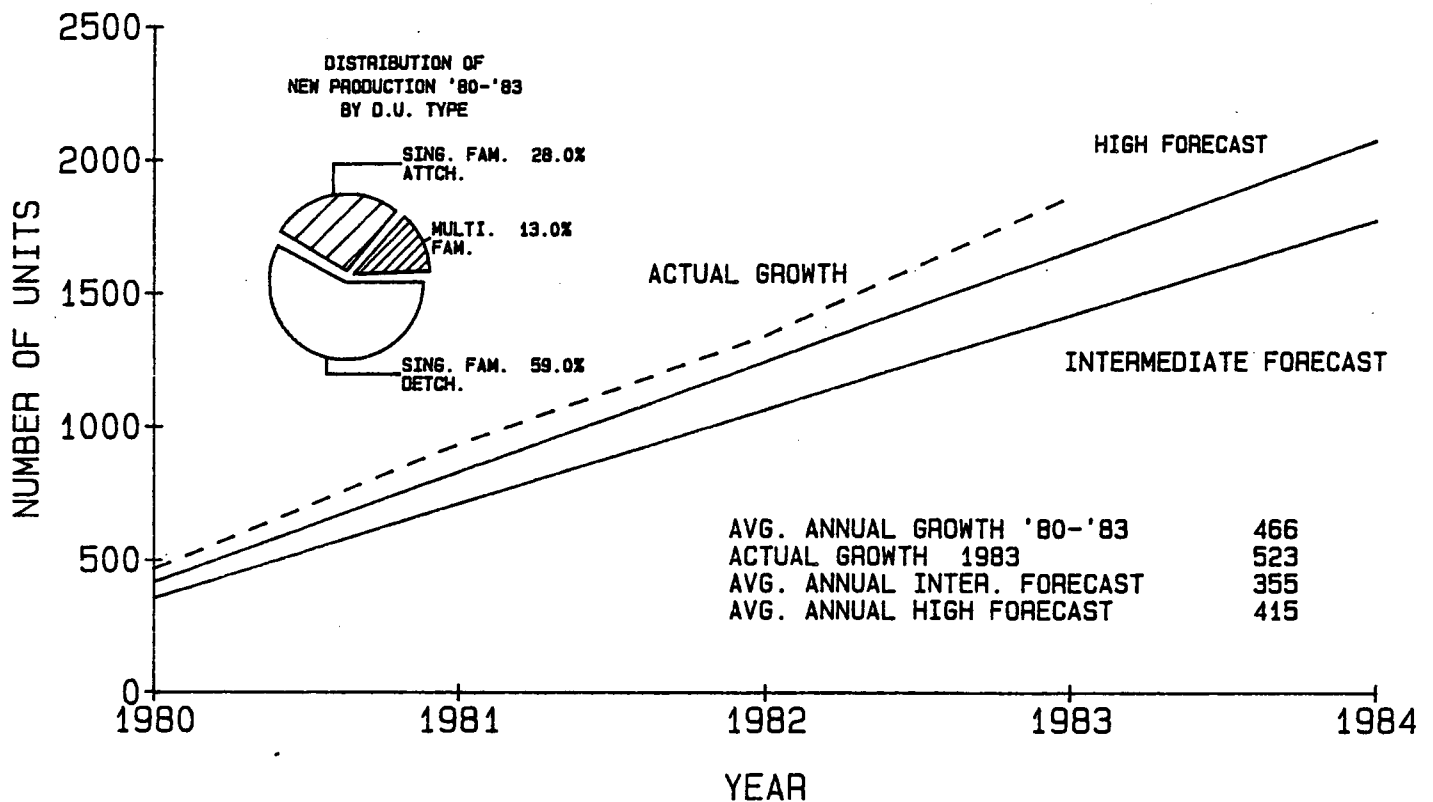
While the northern portion of the Olney area is within the farmland preservation zone, the southern half has experienced steady suburban growth. Olney has a very high percentage of traditional family households and a corresponding low percentage of single person households. Its median household income is among the highest of all planning areas.

If the 1984 housing completions match 1983 completions, then the high forecast will be marginally exceeded. There are a number of major projects underway which indicate that over 200 units will be built during 1984.

Cherrywood and Cherrywood Knolls, south of the town center are currently selling single-family detached units. Norbeck Place, once part of the original Cherrywood development, is also marketing single-family homes. Olney Oaks off MD 108, a half mile west of Olney, is building single-family units while Olney Woods is building both townhouses and single-family homes. Enrion, in the northeast quadrant of Olney, is planning to construct a mix of housing units but these units will not be ready until after 1984. The Beane Property, located in the southeastern quadrant, has an approved subdivision of approximately 300 units and plans construction some time next year.

HOC is building townhouses on First Avenue, off of Georgia Avenue. Some of the units are already available and will be counted in 1984.

DAMASCUS/POOLESVILLE CUMULATIVE DWELLING UNIT GROWTH
COMPARED TO THE FORECAST
4TH FASTEST GROWING COMPARED TO OTHER AREAS



Bennett, Damascus, Goshen, Patuxent, Rock Creek,
Dickerson, Martinsburg, Poolesville and
Lower Seneca

This area is predominantly zoned for farmland preservation. Except for a few suburbanized pockets of development such as Poolesville and Damascus, this area is rural in character. Scattered farmhouses on two lane roads are fairly typical. Median house values are below the median for the County. There is a relatively small percentage of rental units and a very high percentage of traditional husband/wife families. Compared to the rest of the County, the people living here are less mobile.

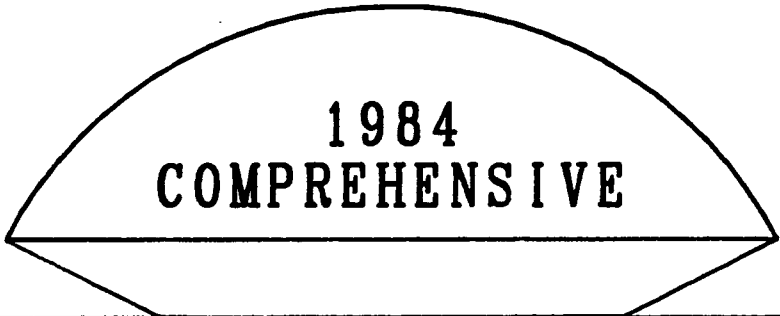
Even though this area is the fourth fastest growing compared to other areas, it can not be viewed as a "major" growth area. That distinction is reserved for the I-270 Corridor and Fairland/White Oak which are growing significantly faster than all other areas. This area is the fourth fastest principally because of its vast land area. Development has been ahead of what was anticipated. It is likely that the high dwelling unit forecast will be exceeded by the end of 1984. The heaviest concentration of development has occurred in the Damascus area where 1,731 units were completed (94 percent of the total completions in this area between 1980-1983).

The Poolesville area saw very little housing development. In 1983, the area completed 75 dwelling units while in 1982 only 6 units were built.

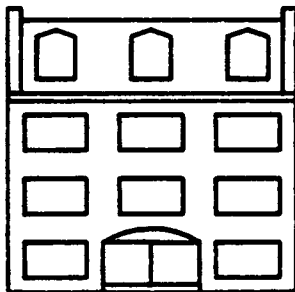
For the most part, the up-County area is void of public sewer service, except for Damascus and Poolesville which have their own treatment facility. In 1983, approximately 485 units were constructed on septic systems representing almost 8 percent of the total units constructed County-wide.

TABLE 23
AT-PLACE EMPLOYMENT
INTERMEDIATE FORECAST

Policy Areas and Planning Areas	1980	1985	1990	1995
SILVER SPRING	37,700	39,200	43,600	45,800
36 Silver Spring	33,200	34,700	39,000	40,900
37 Takoma Park	4,500	4,500	4,600	4,900
BETHESDA	74,400	76,400	80,000	82,900
35 Bethesda	74,400	76,400	80,000	82,900
NORTH BETHESDA	73,500	81,500	92,500	101,100
26 Rockville	27,300	31,500	40,200	46,100
30 N. Bethesda	46,200	50,000	52,300	55,000
KENSINGTON-WHEATON	36,600	37,800	39,200	41,600
27 Aspen Hill	10,000	10,000	10,100	10,400
31 Wheaton	22,500	23,700	24,400	25,300
32 Kemp Mill	4,100	4,100	4,700	5,900
I-270 CORRIDOR	42,700	55,000	60,700	67,700
13 Clarksburg	900	1,400	1,700	2,800
19 Germantown	5,600	7,900	9,300	11,900
20/21 Gaithersburg	36,200	45,700	49,700	53,000
COLESVILLE	16,200	19,800	22,100	23,200
28 Cloverly	1,500	1,500	1,500	1,600
33 White Oak	9,300	10,200	10,500	10,900
34 Fairland	5,400	8,100	10,100	10,700
POTOMAC	12,300	12,600	12,800	13,100
24 Darnestown	200	200	200	200
25 Travilah	800	900	900	900
29 Potomac	11,300	11,500	11,700	12,000
OLNEY	4,000	4,000	4,200	4,400
23 Olney	4,000	4,000	4,200	4,400
DAMASCUS	3,200	3,300	3,500	3,700
10 Bennett	500	500	500	600
11 Damascus	1,200	1,300	1,300	1,400
14 Goshen	300	300	300	300
15 Patuxent	700	700	900	900
22 Rock Creek	500	500	500	500
POOLESVILLE	1,400	1,400	1,400	1,500
12 Dickerson	500	500	500	600
16 Martinsburg	200	200	200	200
17 Poolesville	500	500	500	500
18 Lower Seneca	200	200	200	200
TOTAL COUNTY	302,000	331,000	360,000	385,000



PLANNING POLICIES REPORT



MONTGOMERY COUNTY'S RENTAL HOUSING MARKET

INTRODUCTION

New rental housing production has begun to register a dramatic turnaround in Montgomery County due to an aggressive program of local and state development financing with issuance of below-market rate, tax exempt bonds. Between 1979-1982, according to U.S. Department of Housing and Urban Development (HUD) Area Office data, Montgomery County issued building permits for an average of 750 new rental units a year. Approximately 40 percent of these units, moreover, were served by HUD's Section 8 program, which not only provided deep subsidy assistance to qualified low income tenants, but also supplied below-market rate mortgage financing for all units in the same Section 8 development(s).

The year 1983 witnessed the start of this current rental production resurgence. Over 1,500 units were covered by building permits in that year, and construction was started on 1,200.

The termination of HUD's additional Section 8 contract authority left a vacuum into which local and state financing activity has quickly moved. By mid-summer 1984, 3,660 rental units had been placed into the production and marketing pipeline. Some 1,200 of these units were nearing completion and were in process of marketing, approximately 1,800 were in imminent pre-construction status, and some 650 units are scheduled for mid-or-late 1985 construction start.

Local bond financing is dominating the above 3,660 unit production. The County's HOC will provide funds for all but one project of 468 units. This project is located in the Germantown Planning Area and is being financed by the Maryland Department of Community Development.

Of the total 3,660 rental units, 110 will benefit from relatively deep subsidy assistance to be provided by the County's Department of Housing and Community Development (DHCD). This fund will be obtained from proceeds generated by the Condominium Transfer Tax. Rent skewing, wherein fixed rent levels for different-size units are derived from County family income levels rather than unit debt service and operating costs, will serve an additional 620 of these units. The remaining approximately 2,900 units will be offered at "market rents," i.e., without subsidy assistance other than their below-market rate financing.

The magnitude of this new rental effort and its dramatic reversal to previous production patterns warrant the following analysis of the Montgomery County rental market.

THE COUNTY RENTER UNIVERSE

Montgomery County's renter universe, as described in the 1980 Census, consisted of 73,056 households and an inventory of 76,892 units, the latter embodying a 5.0 percent renter vacancy rate. Renters constituted 35.3 percent of County households, a reduction from 1970's 38.6 percent. In contrast, the owner occupant households in the County in 1980 amounted to 134,139, 64.7 percent of the total; this was an increase over 1970's 61.4 percent.

The following analysis presumes preponderant marketing of newer rental housing production to renter universe households, existing and prospective. The County's dominant renter-to-owner tenure crossover trend of previous decades is expected to continue. Comparatively little prospective demand for new rental housing will stem from current owners.

The 1983 Renter Universe Estimate

The January 1983 renter universe is estimated at some 76,000 households out of a total household count of 219,000. This constitutes an average annual increase of some 1,000 households over the 1980-1983 period. Renters constitute 34.7 percent of all occupant households, a modest decrease from 1980's 35.3 percent. The percentage decline is attributable to the preponderance of sales housing production since 1980 and continuing, though abated, condominium conversion activity. The total household count of 219,000 is derived from Planning Board estimates.

Renter Households are Smaller Size

County renter households are characterized by their smaller size and by the proportional dominance of single persons, as shown below.

Montgomery County Renter Households, by Household Size, 1980

Size of Household	Number	Percent
1 Person	26,872	36.8
2 Persons	22,282	30.5
3 and 4 Persons	18,456	25.3
5 or more Persons	5,347	7.3

This distribution is significantly different from that of owners. Owners constitute 12.5 percent, 1 person households; 31.0 percent, 2 person; 41.1 percent, 3 and 4 person; and 15.4 percent, 5 or more person. The median renter household size is only 1.4 persons as compared to 3.3 persons for owners.

Renter Household Incomes

The 1979 median household income for all County households amounted to \$28,994. The median income of renter households in 1979 amounted to only \$17,953, or only 62 percent that of all households. Owners showed a median income of \$36,650, more than double the renter median income; the latter was only 49 percent of the former.

The following shows estimated renter incomes for 1983. The income updating procedures utilize the Consumer Price Index changes for the Washington, D.C. metropolitan area and also take into account methodology used by HUD, which employs County Business Pattern income changes, in part, for making its median income updates.

Estimated Annual Incomes

Montgomery County Renter Households, 1983

Income Interval	Households	
	Number	Percent
under \$5,000	4,500	6.0
5,000 - 9,999	6,750	9.0
10,000 - 14,999	9,375	12.5
15,000 - 19,999	8,625	11.5
20,000 - 24,999	9,750	13.0
25,000 - 29,999	8,250	11.0
30,000 - 39,999	12,375	16.5
40,000 - 49,999	6,000	8.0
50,000 - 74,999	7,875	10.5
75,000 and over	1,500	2.0

Median: \$24,230

The renter universe is assumed to have the same household size distribution as that of 1980. The 1980 Census showed substantial income variations by household size, and this is shown in the following, wherein 1979 median incomes for different-size households have been expressed as index numbers, 1.000 for all renter households.

Median household income, all renter households	1.000
, 1 person renter	.745
, 2 person renter	1.142
, 3 & 4 persons renter	1.202
, 5 or more person renter	1.316

Rent Paying Patterns

The median renter household income in 1979 was approximately \$18,000. The 1980 median gross rent (contract rent paid to landlord, plus utility and service costs paid separately by the

tenant)-income ratio at the corresponding Census-reported income interval was 23.7 percent. At the 1979 third quarter level of household income, \$27,295, the median rent-income ratio amounted to only 19.0 percent. Affordability analysis will take these differentials into account.

RENTAL HOUSING PRODUCTION, MONTGOMERY COUNTY

The Washington D.C. HUD Area Office has carefully tracked new rental housing building permits for most of the Washington region jurisdictions (Standard Metropolitan Statistical Area less Charles, Frederick and Calvert Counties). Its records show, for the period 1979-1983, permits issued for 4,546 multi-family rental units in Montgomery County, nearly 49 percent of the region's total. The units were predominantly, 68 percent, market, i.e., unassisted by any subsidy other than HUD or state/local government below-market interest rate financing. This 68 percent is greater than the total region's 52 percent.

The following shows the described permit activity for the County by individual years.

Rental Housing Units Covered by Building Permits, Montgomery County, MD., 1979-1983

Year	Total Units	Market Units	Assisted Units No.	Pct.
1979	652	237	415	63.7
1980	1,447	861	586	40.5
1981	576	460	116	20.1
1982	309	219	90	29.1
1983	1,562	1,307	255	16.3
Total	4,546	3,084	1,462	32.2

Source: Washington, D.C. HUD Area Office

None of these years approached the County's peak 1970 and 1972 rental housing permit activity, 3,657 and 3,825 units, respectively. Those were years of high national and local housing production, served by a prosperous economy and an abundance of low-priced mortgage money. For the five years 1979-1983, County rental housing production was assisted by federal rental subsidies, depended upon below-market rate financing provided under HUD's "Tandem" program (7 1/2 percent interest) or tax-exempt local or state bond financing, or was served by both.

The previous Tandem financing plan of HUD is no longer available to support rental housing production. As stated earlier, an expanded local program of below-market rental housing financing has aggressively moved into the vacuum created by the Tandem withdrawal.

RECENT ABSORPTION AND OCCUPANCY EXPERIENCE

The County's Office of Landlord and Tenant Affairs (OLTA), identified rental projects which were added to the County's inventory since 1980. All were either 80/20 Section 8 Tandem-financed projects, wherein a minimum of 20 percent of the units were served by deep subsidy Section 8 benefits, or were projects served by local or state bond financing, in which 20 percent of the units benefitted from rent skewing or Section 8 subsidy.

The reported initial occupancy experience of these recently completed projects was generally satisfactory, according to interviewed rental property managers and the Washington, D.C. HUD Area Office. The latter had identified seasonal slowdowns (winter) and lagging progress for selected projects during the 1981-1982 economic downturn. According to HUD, an average fill-up rate of 20-30 units per month was typical for individual projects. The subsidized units, particularly deep subsidy Section 8, filled most rapidly and today represent the only rental category for which significant waiting lists have developed.

Interviewed private management representatives pointed out, despite generally low project vacancies, their market rent units do not currently enjoy waiting lists, and that they maintain nearly full occupancy essentially on the basis of "walk-in" applicants.

Only one of the OLTA-identified projects, HOC financed, was in the initial occupancy stage as of May 1984. This same project was also in process of building completion. To overcome the "rawness" of the site and also to obtain rapid initial fill-up, management was offering modest rent concessions. This was described as an interim and flexible strategy, with the extent and amount of concessions regulated by the pace of fill-up, and with anticipated complete achievement of prescribed rents at the time of lease renewals.

Over a 6-month marketing period starting in early winter, 174 units in this project had been rented, or nearly 30 a month. Greatest success was achieved in the lower 20 percent skewed rent units; the fill-up of market rent units was proceeding at the rate of some 15 a month.

Of particular note is the current soft occupancy condition of two previously completed 80/20 Section 8 projects in the US 29 Corridor. Undesirably high project vacancy rates of 9-10 percent are reported, double the rate assumed for Federal Housing Administration feasibility processing. Management has resorted to concessions (one month free rent for one project and a free electronic appliance in the other) to stimulate occupancy. The individual project softness was attributed (by a rival rental

property manager) to the less-advantageous location of the properties i.e., not fronting on the major highway and with reported ingress and egress inadequacies causing rush-hour bottlenecks.

VACANCIES

OLTA conducts annual vacancy surveys of its licensed units which consist, essentially, of all units in structures containing two or more rental units. Only two categories of units are outside of OLTA's scope, i.e., single-family units and renter units in two-family structures where one of the units is owner occupied. The Office's coverage would include about 78 percent of Montgomery County's total renter inventory.

The most recent OLTA renter vacancy survey was conducted in April 1983, at which time the vacancy rate for 53,054 surveyed rental units amounted to 4.14 percent, a reduction from the previous year's rate of 5.08 percent. Vacancies in subsidized housing units were below 1.0 percent; in non-subsidized units, the rate amounted to 4.77 percent.

Historically, vacancy rates in single-family units have been lower than rates in multi-family structures. It is estimated that 1983's 4.77 percent vacancy rate for unsubsidized units would, accordingly, be reduced to perhaps 4.0 percent, when non-surveyed renter units are taken into account.

Additional reductions in area rental vacancies are estimated to have occurred since the April 1983 survey. According to OLTA, the April 1983 survey included the presence of substantial and excessive vacancies within several "problem" projects, which have subsequently been "turned around" as a result of improved management and enhanced investment. Also contributing to the reduced vacancy rate would have been 1983's great upsurge in existing housing sales, which undoubtedly allowed previous single-family rentals to be sold at terms acceptable to their owners.

The current non-subsidized renter vacancy rate in Montgomery County is estimated at 3.5 percent, which is considered "tight." The subsidized unit vacancy rate would still continue below 1 percent.

ASSESSING GROSS RENTAL HOUSING NEEDS

Need for additional rental housing is derived from the following several sources:

1. Net gain in potential, additional renter households. As noted previously, the average 1980-1983 estimated gain amounted to some 1,000 renters per year.

2. Additional rental production required to help balance the inventory and achieve a desired level of vacancies, i.e., 5.25 percent. There would be an estimated shortfall of 1,300 rental vacancies, i.e., the deficit between the currently estimated rate of 3.5 percent (unsubsidized units) and the desired 5.25 percent level. Assuming a three-year period for achieving this balance, the above shortfall translates into an annual augmentation of some 450 units a year.

3. Restoration of units lost to the renter inventory. Previous analysis of County demolition permits showed minimal residential losses, confined entirely to single-family units. The significant continuing source of rental inventory loss would be condominium conversions. OLTA indicates during the last three years there has been conversion of only three projects to condominium status, one per year, amounting to an annual average of 270 units.

Previous studies show that approximately 25-30 percent of units in structures converted to condominium use remain in the renter inventory. Accordingly, the annual conversion of 270 units would reflect a net renter unit loss of some 200 units.

The three sources of need total 1,650 units a year.

ACHIEVABLE MARKET RENTS

The following non-subsidized, gross monthly market rents are viewed as being currently achievable for prospective new rental housing.

Estimated Achievable Monthly Gross Rents

Low rise units	: 1 BR \$625
	: 2 BR \$700
	: 3 BR \$750
High rise units	: 1 BR \$900
	: 2 BR \$1,000

These rents are premised upon a representative total development cost of \$45,000 for a low rise and \$70,000 for a high rise unit, 35-year term, 90 percent loan-to-value ratio, and 11.00 percent effective annual interest rate.

These gross rents compare fairly closely (modal cluster) to gross rents calculated by HOC and to gross rents actually achieved for the state financed project.

A DETERIORATING RENTER UNIVERSE

According to a 1981 analysis by George Sternlieb and James W. Hughes, entitled *The Future of Rental Housing*, local rental housing markets are suffering rapid deterioration in their strength and vitality. The steady decanting over recent years of the more upwardly mobile renters to ownership tenure has been leaving a residue of households who, increasingly, cannot afford to pay required rents for quality housing.

Two major findings of this study are:

1. Husband-wife families, whose incomes are among the highest among all renter households, are rapidly shrinking in their comparative incidence. In 1970 they constituted 54.2 percent of all renter households; 8 short years later in 1978 their incidence had fallen to 37.9 percent.

2. Within each household category, the comparative income strength of renters (ratio of tenant incomes to owner incomes) registered a sharp decline between only 1973-1978. The sharpest comparative decline, 21.9 percent, was registered among female headed households.

The National Association of Housing and Redevelopment Officials (NAHRO), comparing 1970 and 1980 Census data, showed that median incomes of homeowners, measured in constant dollars, stayed relatively even over the decade. Renters' real median income, however, declined by nearly 21 percent!

Although counterpart renter household comparison data for the County are not yet available, the following suggests that Montgomery County has followed the national pattern:

1. For combined County owners and renters, the number of married couple families declined by nearly 11,000 between 1970-1980.

2. Single-parent families in the County increased by 10,000, a 77 percent gain over the decennial period. The number of female headed families in 1980 exceeded by 5,000 the combined total of nearly 13,000 single-parent families in 1970.

3. For the suburban parts of the Washington, D.C. metro area (of which Montgomery County would be representative), married couples declined by 5,100 between 1977 and 1981 and female headed households increased by 3,400.

Barring the most unlikely changes to the Internal Revenue Code which would eliminate or substantially reduce tax benefits for homeownership, the economic deterioration of the renter universe is likely to continue. The major sources of net

household growth, marriages, single persons leaving their parents, and divorces/separations will not generally provide (except for working husband and wife families) the income potential to afford the prices of new rental housing.

In order to enhance the public purpose of its financing efforts, HOC established a mandatory income limit control to obtain low and moderate income occupancy of projects served with its tax exempt financing. (A similar control, but with higher limits, serves the state-financed project as well.)

HOC reserves 20 percent of project occupancy to households with incomes which cannot exceed the following:

1 and 2 person households	\$18,616
3 " "	\$20,943
4 " "	\$23,270
5 " "	\$25,597

The above income limits are derived from HUD's annually computed median family income (four persons) for the Washington metropolitan area. At the corresponding 4 person level, the above HOC limit constitutes 65 percent of the HUD median.

On the basis of the foregoing income limit determinations, and a 30 percent rent-income ratio, HOC then calculates the rent to be charged by all projects to skewed rent households, as follows:

Unit Size	Gross Mo.Rent	Mo. Contract Rent *
1 BR	\$465	\$405
2 BR	524	449
3 BR	582	492
4 BR	640	535

* The maximum utility allowances established by HOC are:
1 BR \$60; 2 BR \$75; 3 BR \$90; and 4 BR \$105.

The market income band which can be effectively served by the above is necessarily narrow. At the top, there is the constraint of income limit eligibilities, and below that there is the restraint of excessive rent-income burden.

EFFECTIVE DEMAND ANALYSIS

Number and Kind of Units

On-line and prospective new rental housing production in Montgomery County will consist of:

1. 3,180 HOC-financed new rental housing units, 2,780 low rise and 400 high rise.

2. 468 new garden apartment rental units, Maryland Community Development financed.

There will also be 472 rental rehabilitation units with below-market rate bond financing supplied by the City of Rockville and HOC. Numerically, the rehabilitation efforts constitute a "break-even" effort, i.e., no gain or loss of units. Additionally, the Rockville effort suggests that total monthly displacement and reofferings of rehabilitated units will constitute a relatively very small monthly impact upon the County's rental housing market.

Subsidy Nature of Units

Rent Supplement Units

Of the 3,660 new rental units, 110 units (contained in a 553-unit DHCD Rent Supplement Program) will benefit from comparatively deep rent reduction subsidy assistance. Program administrators will seek to serve 1 and 2 person households with incomes between \$12,000-\$20,000; 3 and 4 persons, \$15,000-\$23,270; and 5 and 6 persons, \$18,000-\$27,924.

20 Percent Rent Skewed Units

Some 630 units of new construction will benefit from rent skewing. The demand potential for these units is defined as householders within the income ranges of \$16,792-\$18,616 for 1 BR units, \$18,883-\$23,270 for 2 BR units, and \$23,042-\$25,597 for 3 BR units.

Unsubsidized, Market Rent Units

The remaining new construction will be offered at market rents, benefitting only from below-market financing. Some 2,600 low rise units are expected to be offered at estimated gross rents of approximately \$625 for 1 BR, \$700 for 2 BR, and \$750 for 3 BR. The approximately 320 market rent units in the HOC-financed high rise project will benefit from modest initial rent write-downs supported by syndicate funds for a three-year period and then rise to approximately the previously indicated levels of \$900 for 1 BR and \$1,000 for 2 BR units.

Estimating Gross Market Potentials

The following estimates of affordability, i.e., numbers of renter households capable of paying achievable new construction rents, are obtained from updating Census-reported 1979 incomes for various-size households and applying to them a reasonable housing expense ratio derived from 1980 Census relationships at applicable income strata.

For the market rent low rise units, the market potential would fall within the \$33,000-\$50,000 income range; for the high rise units, incomes of \$45,000-\$75,000. Upper dollar limits for respective apartment market potentials recognize that many of the highest income tenants would probably seek alternative premium quality, high prestige units within the existing inventory.

The following numbers of Montgomery County renter households are calculated to have incomes within the above-indicated parameters.

for the rent supplement units	over 22,000
for the 20 percent skewed rent units	5,500
for the low rise market rent units	14,600
for the high rise market rent units	10,900

Arriving at Effective Annual Demand

Calculation of annual effective rental demand requires that substantial attrition be applied to the affordability potentials shown above. Essentially, these attritions are (1) discount for renter households who would not seek out alternative rental housing during a single year marketing period, and (2) application of a realistic "capture rate," i.e., that proportion of income-capable households actively seeking rental units who would opt for new rental housing in the neighborhoods and submarkets where they will be built.

Rental housing dependent upon subsidy assistance will be limited by the amount of available subsidy. The following will show that effective demand for rent supplement units very substantially exceeds the amount which will be provided with the County's limited resources. Under these conditions, effective demand becomes tantamount to supply, in turn, controlled by subsidy availability.

The annual market participation rate of income-affordable renter households is derived from County-renter residential mobility experience during the 15-month period preceding the 1980 Census. The selected capture rate reflects the special appeal of new rental housing units with their modern equipment and recreational amenity features. It also takes into account historically demonstrated capture rates under comparable market conditions of low vacancies, high area employment, and immediately preceding low levels of new rental construction offerings.

The following sets forth estimated annual effective demand estimates for specified output categories and also compares these to output magnitudes:

Type of Unit	Demand, HH's/Yr.	Est. Ann'l. Prod'n.
rent supplement	over 2,000	55
20 pct. skewed rent	460	250-315
mkt. rent low rise	1,200	1,040-1,300
mkt. rent high rise	600 (1)	160

(1) This is a lesser amount than yielded by the described discounting procedures. As such, it recognizes among higher-income households (a) preference for lower rent-income ratios, (b) lesser mobility among renters of elderly and near-elderly status, and (c) an avoidance of moving to a project targeted for condominium conversion, which will be the case with regard to the 404 unit high rise development.

As indicated earlier, the marketing-period for the new rental housing offerings commenced in Spring 1984, will extend through all of 1985, and in fact, will stretch into 1986. Heaviest market impact will take place in 1985. Assuming a two-year-plus production and marketing period, there should be adequate effective annual demand to absorb the scheduled development.

Absorption of the 110 rent supplement units should occur most readily, and the 20 percent skewed units should be occupied without difficulty, as well. Because of their comparatively limited number, the estimated 320 market-rent high rise units (80 of the 404 units will be skewed rent) should also be taken down in order. Only the market rent low rise units appear to require a full two-year-plus absorption period.

The balancing of production, needs, and effective demand does not automatically assure universally successful marketing and absorption of the prospective new rental housing. Less competitive projects, in terms of location and amenities, may, in fact, encounter unacceptably long fill-up periods, and others, unacceptably high levels of continuing vacancies.



1984
COMPREHENSIVE

**DEVELOPMENT PLANS
AND POLICIES**

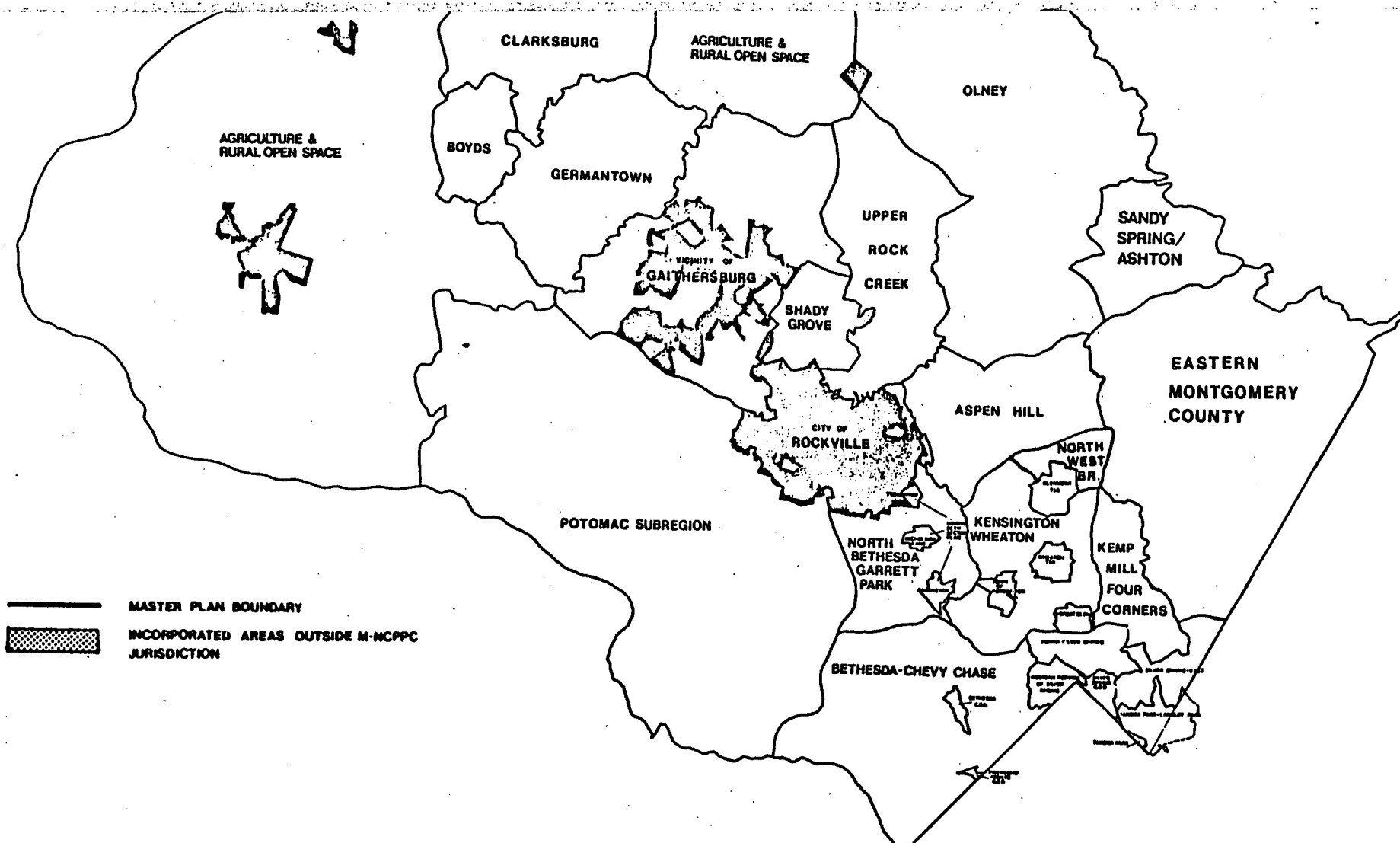
PLANNING POLICIES
REPORT

All land use planning in Montgomery County is based upon the County's General Plan. The General Plan "On Wedges and Corridors" was adopted in 1964 and updated in 1969. The General Plan has been refined by the adoption of local area master plans, sector plans, subregional plans and functional master plans. This section of the report provides direct extracts from only the plans which include development staging guidelines. The reader should refer to each master plan since the following extracts do not include maps and charts. The Plan extracts are in alphabetical order.

TABLE 30

Master Plans	Initial Date of Adoption	Date of Last Adopted Amendments
Aspen Hill Planning Area	December 1970	October 1979
Bethesda-Chevy Chase Planning Area	October 1970	November 1981
*Boyd's	May 1978	November 1982
*Clarksburg and Vicinity	September 1968	
*Damascus	June 1982	
*Eastern Montgomery County	November 1981	
*Gaithersburg & Vicinity	January 1971	July 1982
*Germantown	January 1974	November 1982
Kemp Mill-Four Corners & Vicinity	May 1967	
Kensington/Wheaton	September 1959	July 1982
North Bethesda/Garrett Park Planning Area	December 1970	
*Olney	June 1980	
*Potomac Subregion	May 1980	September 1982
Poolesville Vicinity	September 1980	
*Rock Creek	October 1968	March 1980
*Sandy Spring/Ashton Special Study	November 1980	February 1981
*Silver Spring East	March 1977	
Silver Spring West	April 1972	August 1976
Takoma Park	May 1982	
Upper Northwest Branch	April 1961	November 1981
Upper Rock Creek	November 1967	March 1983
Sector Plans		
*Bethesda CBD	June 1976	November 1982
Capitol View	July 1982	
Forest Glen Transit Impact Area & Vicinity	July 1978	
Friendship Heights CBD	June 1974	
Glenmont Transit Impact Area & Vicinity	July 1978	
Kensington Town & Vicinity	September 1978	
*North Bethesda, Grosvenor, Nicholson Lane	May 1978	February 1981
*Shady Grove Transit Station Area	April 1977	
*Silver Spring	July 1975	June 1978
Silver Spring North	July 1978	
*Takoma Park Transit Impact Area	October 1974	
Westbard	September 1982	
Wheaton CBD & Vicinity	July 1978	July 1982
Functional Plans		
*Agricultural Preservation	October 1980	
Bikeways	June 1978	
Historic Preservation	September 1979	
Highways	June 1955	
Rock Creek Watershed	May 1980	
Seneca Creek and Muddy Branch Watersheds	February 1977	

*Extracts follow.



AGRICULTURAL PRESERVATION FUNCTIONAL MASTER PLAN

Adopted October 1980

(Starting on Page 59)

WATER AND SEWERAGE GUIDELINES

Water and sewer service are two of the most significant public services that control the timing of development. The recommended guidelines are designed to permit little, if any, additional service within the Study Area with the exception of the growth areas--Damascus, Clarksburg, Olney, and Poolesville. The selective and limited expansion of public water and sewer service will support and help implement the preservation recommendations expressed in this Plan. Service to the Agricultural Preservation Study Area is shown on the Existing Public Resources Maps.

Recommended Water and Sewerage Guidelines

- Consistent with recommendations in the Fifth Annual Growth Policy Report, the entire Study Area (Policy Area I) is not recommended for public sewer service within the next 20 years, with the exception of Clarksburg.
- Deny public water and sewer service to areas designated for agricultural preservation that utilize the Rural Density Transfer Zone (RDT).
- Endorse existing policy to relieve public health problems beyond the sewer envelope by permitting publicly sponsored individual or community system installation under controlled conditions.
- Continue investigation of alternative publicly sponsored individual and community systems for application in areas experiencing community-wide or scattered public health problems beyond the sewer envelope.
- Deny private use of alternative individual and community systems in all areas designated for the Rural Density Transfer Zone (RDT).
- Study the possible application of private alternative individual and community systems in rural open space areas.
- Develop water and sewer policies for the Damascus area that complement its critical location within the Agricultural Reserve as part of the Damascus Master Plan update process.
- Study rural communities and villages for those should be considered for publically sponsored alternative individual and community systems to help increase the amount of low and moderate cost housing and solve related health problems.
- Support the water and sewer recommendations expressed in the Olney Master Plan and Poolesville Vicinity Master Plan.

Recommended Water Resource Guidelines

- Provide solutions to water resource problems in the form of conservation, treatment, and animal waste management measures. In conjunction with the Little Seneca Lake project, a report entitled Seneca Creek Watershed was published by the Montgomery and USDA Soil Conservation Districts, the USDA Forest Service, and the Environmental Division of the MCPB in November, 1979. This is a valuable land management document and should be the prototype for future land management reports for other agricultural areas.
- Preserve and improve the water quality and quantity of streams in the Agricultural Preservation Study Area and reduce the harmful effects of flooding, erosion, and sedimentation by requiring that new development within the proposed growth areas of Clarksburg and Damascus be channeled and phased in accord with a comprehensive watershed management program.

BETHESDA CBD SECTOR PLAN

Adopted June 1976

Amended November 1982

(Starting on Page)

STAGING PROCESS.

The Stage I area, which includes all properties within the existing CBD-3 Zone, remains unchanged from the 1976 Plan as amended in 1980. (See Figure 5, Staging Plan.) The Stage II area is shown in Figure 5. The general boundaries are Old Georgetown Road (north), Arlington Road and future Woodmont Avenue (west), Hampden Lane, Bethesda Avenue and Willow Lane (south), and 47th Street and Waverly Street (east). Also included in the Stage II area are properties in the northeast portion of the East-West Highway/Wisconsin Avenue intersection. The Stage III area includes all of the CBD-2 area not included within the Stage II area. In the Stage IV area, which includes the CBD-1 area, only optional method applications with 80 percent or more residential floor space are approvable under this Amendment.

Because development capacity is limited, those sites within the Stage II area (see Figure 5, Staging Plan) which are ready will receive an early allocation of trips. The allocation process requires that they move into development within the time limits specified in the zoning ordinance. If properties in the Stage II area do not develop, this Amendment recommends that trip allocations become available to properties in the Stage III area. The same use mix guidelines would apply. The opening of Metro is to be the cut-off point for the Stage II area sites to apply for optional method approval; any remaining unallocated trips could then be granted to properties in either the Stage II or Stage III areas. Projects in the Stage II area containing 25 percent residential floor area and projects in the Stage III area containing 30 percent residential floor area will be given priority for approval in the Stage II time period (before Metro opens). Furthermore, any optional method project containing at least 80 percent of the floor area in residential use may be approved at any time and at any place within the CBD.

This Amendment places a limit on when property owners may apply as described below under Optional Method Administration Procedure. Applications will be processed and optional method approvals shall be granted until the trip allocation for office/retail uses is exhausted. If the total requested trips for office/retail development in the center exceed trip allocations during the first 210 days after adoption of this Amendment, applications will be judged based upon comparative merit as defined by the Standards for Comparison, which appear later in this report.

ALLOCATION PLAN

The Plan Amendment allocates 2,100 trips to specific uses or mixes of uses within the Bethesda CBD Study Area. Any new development committed after January 1, 1982 will be subtracted from the 2,100 trips. The approval of new development shall be limited by the maximum trips allocated, as shown on Table 1. The uses shown on Table 1 are a guide to the use mix which could be approved within the maximum trips allocated.

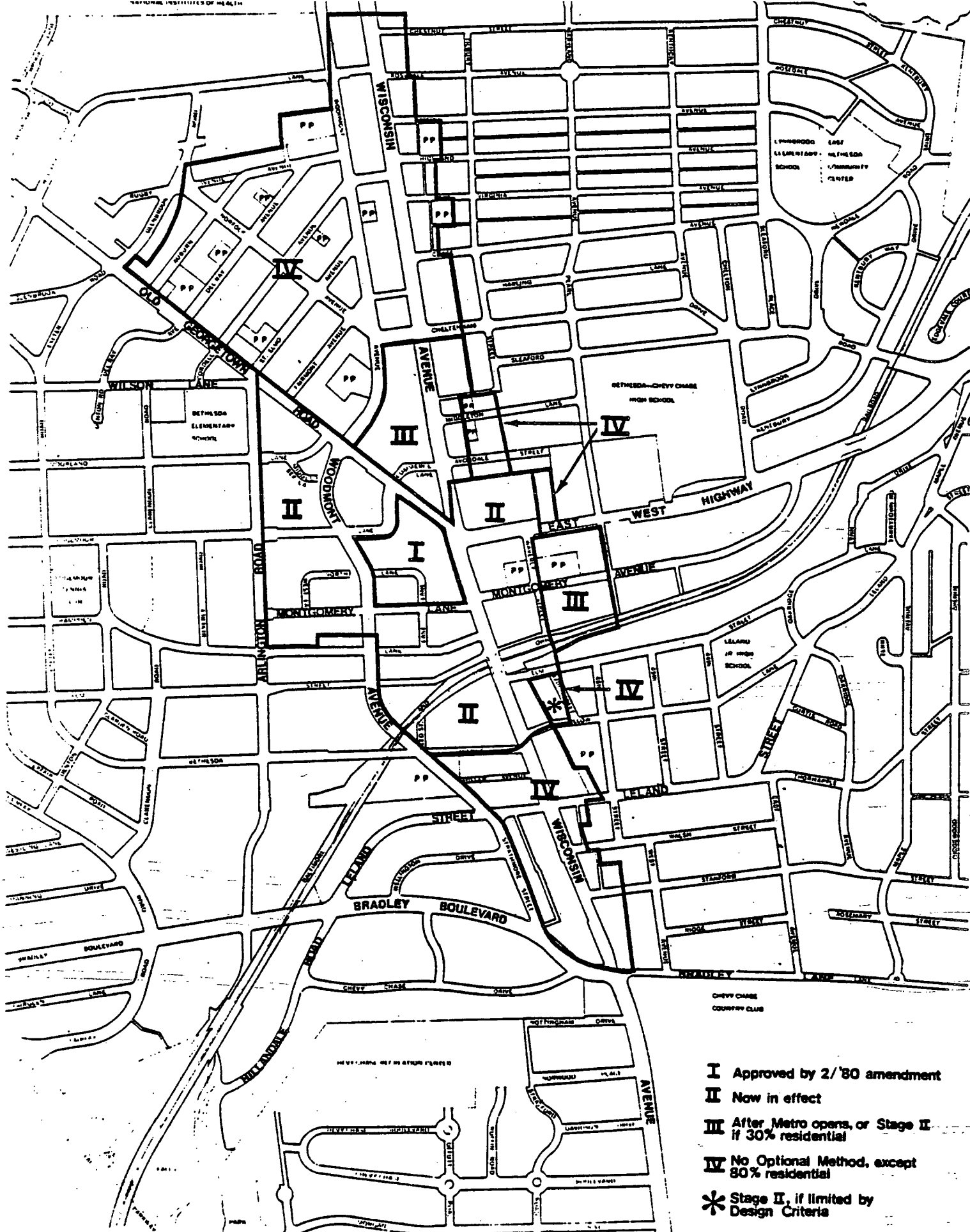
The Plan Amendment recognizes that some development under the standard method will take place in the Bethesda CBD Study Area. Accordingly, 200 trips are set aside for this purpose. Since such development may build by right, use of more than the 200 trips would reduce the trips available for the office/retail development category. (See Table 1.)

A minimum of 225 trips are allocated for residential projects in the Bethesda CBD Study Area. Projects containing 80 percent residential floor area can be approved in any CBD Zone. Residential trips from mixed use projects will be taken from the residential allocation. Additional projects (having at least 80 percent residential floor area) which exceed 225 trips may be approved. Such approvals will reduce the trips available for the office/retail development category.

The office/retail mix of uses, anywhere in the Stage II area, can accommodate 1,675 allocated trips. Projects shall generally conform to the desired use mix (in floor area) of 88 to 100 percent office and up to 12 percent retail. The Planning Board will determine retail floor area on a case-by-case basis. Any property in the Stage III area is eligible for optional method approval in the Stage II time frame, if approximately 30 percent (1.2 FAR) or more of the project is residential. Such projects should generally provide up to 12 percent (0.5 FAR) retail and the balance in office use. A small increase in the office or retail amounts may be approved if residential unit sizes result in more than 45 units per acre.

The suggested use mixes shown on Table 1 and in Appendix C are intended to provide general guidance. The Planning Board may approve variations from these amounts when: (1) proposed uses, especially residential, contribute to the general objective of increasing vitality and after-hours activity in the CBD, and (2) the use mix would not result in substantially greater trip generation than shown for each block in Table C-1. . .

Applications for optional method development for projects in the Stage II area that contain 25 percent or more of total project floor area in residential use (a minimum of 30 percent is required in the Stage III area) will be given priority and will be exempt from the review period requirements. Such projects will be accepted at any time after Commission adoption of this Plan Amendment, and may be approved by the Board at any time. Furthermore, it is the intent of this Plan Amendment that projects in the TSR area shall be eligible for zoning amendment and site plan approval in the Stage II time period.



Amendment to the Sector Plan - November, 1982

BETHESDA CBD

FIGURE 1

STAGING PLAN

TABLE 1
BETHESDA CBD STUDY AREA
ALLOCATION BY USE SHOWING SUGGESTED USE MIX

Development Category	Use Mix	Floor Area Square Feet	Dwelling Units	Trips Allocated
STANDARD METHOD				
Office	(75% est.)	111,276		128
Retail	(25% est.)	<u>37,092</u>		<u>72</u>
Subtotal		148,368		200
RESIDENTIAL¹				
Residential	(80-100%)	1,606,369	1,444	179
Office	(10% est.)	31,415		18
Retail	(10% est.)	<u>35,920</u>		<u>28</u>
Subtotal		1,673,704		225
OFFICE/RETAIL²				
Office	(88% min.)	1,183,936		1,362
Retail	(12% max.)	<u>161,446</u>		<u>313</u>
Subtotal		1,345,382		1,675 ³
SUMMARY OF USES⁴				
Residential		1,606,369	1,444	
Office		1,326,627		
Retail		<u>234,458</u>		
Grand Total		3,167,454		2,100

- ¹ Floor area calculations reflect site specific use estimates shown on Table C-2, Appendix C.
- ² Office/retail trips may be allocated for those sites in the Stage III area that provide a minimum of 30 percent residential.
- ³ Only 1,175 of the 1,675 trips will be authorized absent a personalized ridesharing program. In that case, the Grand Total would be 1,600 trips.
- ⁴ Building demolitions are likely to result in additional square footage. Trips associated with demolitions will be included in the trip calculations for each site approved.

BOYDS MASTER PLAN
Adopted May 1978
(Starting on Page 37)

SEWERS

The existing sewer situation in Boyds is less than adequate and presents some special problems which must be solved if the town is to continue as a viable community. Although the majority of homes have working septic systems, there are several which totally lack indoor wastewater facilities. There have also been a number of instances when existing systems have failed.

A standard sewer system using large diameter pipe and a gravity flow process involves a substantial cost to provide a wastewater treatment system to a community, especially in a rural area where the houses are not immediately adjacent to one another. This high installation cost usually renders central collection systems in rural areas infeasible.

However, the use of a pressure system which utilizes small diameter plastic pipe provides an excellent alternative solution. Installation of this system involves connecting the existing house wastewater line to a Sewage Grinder Pump (SGP) unit which shreds waste and pumps it through small diameter plastic pipes which replaces a conventional sanitary sewer line. The existing septic tank remains connected and is used as an emergency overflow tank. Using this approach, the staff of the Montgomery County Office of Community Development has developed a possible cost-effective approach to this type of sewer system.

Basic components of the system are the pump-storage-grinder unit consisting of a master pump, grinder, check and relief valves and control tap; a concrete storage tank; plastic effluent pipe; and a failure alarm. The system requires 20 amp, 110 volt electrical service with the piping and pump storage grinder installed below the frost line to prevent freezing.

The collection system consists entirely of small diameter pressure lines which range in diameter from 1½ to 3 inches, combined with storage-grinder-pumps which can be designed to serve single, dual or multiple dwelling units. By locating the storage-grinder unit so that it serves more than one home, the cost per dwelling unit can be reduced.

Treatment is handled by a batch aerobic treatment unit. This treatment unit consists of a single container in which aeration, sedimentation and decanting of treated effluent are accomplished. The operation cycle would include more than 20 hours of aeration, 3 hours of sedimentation and 30 minutes decanting of the effluent, all of which is automatically controlled. The small amount of sludge which accumulates in the tank can be removed by pumping and hauling as necessary to designated WSSC septic tank pumpage acceptance sites. Sludge removal would be necessary perhaps twice annually.

The size of treatment facilities is based upon information regarding waste flows in rural areas. It has been well documented that rural water usage in homes with water consumptive fixtures and appliances is slightly more than 40 gallons/ person/day. Because Boyds will have the advantage of water from the extension of the WSSC system, it has been assumed that water usage may be slightly higher than if it were supplied by wells. For this reason, calculations to determine the feasibility of this system for Boyds used a figure of 50 gal/day/person.

The basic components of the recommended wastewater disposal system are relatively simple. These components would include secondary treatment through the batch-aerobic process followed by land irrigation. Secondary pre-treatment is necessary to comply with Maryland criteria prior to disposal on land. Use of aerobic secondary

processes, is also necessary to enable nitrification to occur in the partially treated wastes. This is beneficial prior to land irrigation to prepare the waste for nitrogen removal by denitrification which occurs in the soil.

The secondary treatment units necessary for this alternative are readily available manufactured units which require no special fabrication or components. The secondary treatment unit can be placed in the ground and the entire system blended into the natural environmental setting.

Overall, this system represents a feasible and innovative approach to rural communities having problematic soil conditions and a small volume domestic wastewater flow.

This system is competitive with and less costly than a WSSC extension while accomplishing the objectives that are of vital importance to the future of this and other rural communities. Important aspects of this system which are critical to both the system and the plan are:

- . Providing a disposal system that has a limited capacity for future growth, thus protecting the character of the community by maintaining its low density and following the goals established by the Rural Zone and the General Plan for rural areas.
- . The establishment of a sewerage system will provide the town with the growth potential necessary to sustain the needs of its growing population and provide support for its existing and proposed community facilities.

STAGING

In order to address the most severe sewage needs in Boyds first and to ensure that the implementation of the recommended system is not undertaken without sufficient community support, the proposed service area is divided into two stages. Since the problems are generally more severe south of Route 117, it is anticipated that this section will be constructed first with the northern portion of the planning area to be served at a later date. The full-size treatment facility and disposal site will be developed along with the stage 1 collection system. Thus when stage 2 is ready for inclusion in the sewerage system, all that will be required is the installation of the collection system and the connection to the 3" pressure sewerline at the northern point of White Grounds Road.

Implementation of this recommendation shall proceed only after 60 percent of the existing users within either stage 1 or stage 2 demonstrate their willingness to connect to this system by filing a petition with the Montgomery County Office of Environmental Planning and/or the County determines that a public system is required to safeguard the public's health.

In the event that no petition is filed prior to the adoption of the FY-1981 Ten-Year Water Supply and Sewerage Systems Plan, the Planning Board will reconsider all master plan elements which are contingent on the construction of the public water and sewer system.

CLARKSBURG MASTER PLAN
Adopted September 1968
(Starting on Page 16)

INFLUENCES ON FUTURE GROWTH

...

Another problem is the absence of public services, due to the small current population. The use of wells and septic tanks is becoming increasingly unsatisfactory as population density increases, because the area's rocky geologic structure and impermeable soil encourage the mixture of septic tank effluent with well water and could, eventually, create a major health problem. Lack of sewers acts as a deterrent to economic growth and restricts choice in site selection for development. Public services are needed to improve rural roads, and Interstate 70-S is already overcrowded in peak hours as far north as Germantown. Secondary schools, playfields, a library, a health center, and police and fire facilities are absent.

...

(Page 22)
IMPLEMENTATION OF THE PLAN

Putting the Plan for Clarksburg into effect will involve a number of different public programs. The most important of these will be the administration of the Zoning Ordinance and Subdivision Regulations and the construction of roads, sewerage and water supply systems, and other public works.

Staging

The Zoning Ordinance will be a principal control over private land development in the Planning Area. A process of rezoning must inevitably take place in Clarksburg, as it must in all areas undergoing rural-urban change. A method or system for orderly zoning change must be evolved. This could consist of an explicit series of criteria for rezoning to any of the districts in the Zoning Ordinance. These criteria would be concerned with such factors as the capacities of existing and programmed sewerage, water supply, and road systems, schools, and other public services, in consideration of soil conditions and capabilities and compatibility of the proposed development with its surroundings. These criteria should be developed on the basis of experience with traffic-generating characteristics of development in zoning districts, with projected water use and sewage discharge by different types of development, with soil conservation practices, and with other relevant factors. They should be explicit in order to guide the Planning Board and the County Council in rezoning decisions and to provide prospective developers with a correspondingly explicit statement of the County's policy on land development. Although much of the knowledge needed for deriving such criteria now exists, it has not yet been organized in usable form; this should be a continuing subject of research by the Commission staff.

DAMASCUS MASTER PLAN

Adopted June 1982

(Starting on Page 44)

PROPOSED IMMEDIATE ROAD IMPROVEMENTS: DAMASCUS BUSINESS DISTRICT

- a. Extend the eastbound through lane, in front of the bank, back around the curve on Route 27 southward to Damascus Boulevard. This improvement will make both eastbound lanes accessible during the P.M. peak hour. Right lane is now intermittently blocked by standing vehicles.
- b. Extend the southbound right turn lane on Route 27 from the fire house northward to a point opposite the old Woodfield-Ford garage. This improvement will permit operation described in e. and f. below.
- c. Construct a 24 foot 2-lane open section road from the existing entrance to Damascus Center at Route 27 westward to intersect radially with the existing curved paving on Lewis Drive (this road is referred to as Ridge Road-Lewis Drive connector). This improvement will provide an alternate route through the business area.
- d. Re-stripe and install appropriate signs to create two eastbound lanes on Main Street at Ridge Road with left turn mandatory from the left lane and optional from the right lane. This will reduce the time required for eastbound traffic to clear the intersection during its green cycle.
- e. Re-stripe Ridge Road north of Main Street to create two northbound lanes and one southbound lane as far as the entrance to the shopping center.
- f. North of the above intersection merge the two northbound lanes into one. Additional capacity is not recommended beyond this point. Capacity will be provided to the east by A-12.
- g. Beginning opposite the furniture store (former Woodfield garage) on the west side of Ridge Road, stripe the paving so as to provide a southbound free right lane and a central through-left turn lane approaching the intersection of Ridge Road-Lewis Drive connector.

This new intersection should be clearly marked so as to direct southbound Route 27 traffic to turn right at this point and proceed via Lewis Drive rather than turning right at Main Street. (Operation should be observed to determine need for a future signal). Right and left turns would still be allowed at Main Street to serve local needs.

- h. Extend the widening of Main Street adjoining the entrance to the Damascus Center westward to meet the very short right turn lane now existing just east of the intersection at Ridge Road.

Improvements "a" through "h" are recommended to be included in the state's "Special Projects" program.

- i. To improve safety, parking on the south side of Main Street east of the intersection with Ridge Road should be removed to an off-street location or, at least, converted from a diagonal to parallel pattern.

The items described under "Proposed Immediate Road Improvement: Damascus Business District" represent the first stage of a public improvement package which this Plan proposes in order to provide capacity to handle anticipated traffic increases in the near future. The entire improvements package is described in Proposed Business Area Roadway Improvement Map. This Plan recommends that these improvements be included in the State Highway Administration's "Special Projects" programs as quickly as possible. These improvements are calculated to raise the level of service from "E" to "A" at the intersection of Routes 108 and 27 during P.M. rush hour.

To accommodate the additional traffic that is expected along Woodfield Road (Md. 124) in future years, particularly when the Shady Grove Metro station opens, Woodfield Road should be extended north of Route 108 to Ridge Road. This link, coupled with improvements to the Ridge Road - Route 108 intersection, would distribute through traffic over several roads and would greatly reduce rush-hour congestion. This Plan recommends that Woodfield Road intersect Ridge Road south of Faith Lane and that Faith Lane be relocated to intersect with Woodfield Road extended rather than Ridge Road. Further capacity, if needed, could be attained by adding another lane to Woodfield Road between A-11A and Main Street.

As noted, the State Highway 20-Year Needs Inventory recommends reconstruction (widening) of Route 27 to relieve future congestion. This Plan has explored the possibility of constructing a parallel road west of Md. 27 (between Gue Road and Md. 80) to provide additional capacity. The cost of acquiring a right-of-way and building 9000 linear feet of roadway is estimated to be \$2.8 million.¹ The estimated cost of adding one or two lanes to Route 27 ranges from \$450,000 to \$780,000. This Plan therefore endorses the idea of reconstructing Route 27 within the present right-of-way north of Faith Lane rather than building a new road paralleling Route 27.

Arterial roadways usually are obtained by dedication during the subdivision process and are usually constructed with private funds. Driveway access to arterial roads can be controlled in accord with subdivision regulations, thereby assuring high capacity and smooth traffic movement.

Primary roadways provide internal circulation within a subdivision or neighborhood. Although the Transportation Plan shows proposed locations for primaries, the final location is determined at time of subdivision. Primary roads may also be deleted or added at time of subdivision.

1	Construct 2-lanes @ \$225.00/ft.	=	\$2,300,000
	+ 20% engineering costs	=	\$ 500,000
	R-O-W @ \$500/acre	=	\$ 80,000
			<u>\$2,880,000</u>

IMPLEMENTING PROPOSED TRANSPORTATION IMPROVEMENTS

Table 5, Staging of Road Improvements in Damascus, places a priority on road improvements and identifies how they would be implemented.

PUBLIC TRANSIT

The Damascus area is not currently served by public transportation. Current planning and financial studies being conducted by the Washington Metropolitan Area Transit Authority, with input by Montgomery County, include a proposal to extend Metrobus service to Damascus. The proposal is being made for purposes of analysis as part of a 10 year projection of budget impacts of Metro transit services. The results of the study, which are not yet available, will indicate the patronage demand and costs associated with the proposal. The proposal specifies 30 minute peak-only headway between Damascus and the Shady Grove Metrorail Station. Service of that nature would most likely be implemented, if warranted, some time at or soon after the opening of the Shady Grove Line late in 1983.

Informal commuter parking for 30 cars is occurring every business day near the church north of the intersection of Md. 80 and Md. 27 at Claggettsville. If public funds become available for commuter parking in Damascus, sites north of the business area should be considered to reduce congestion at Ridge Road and Route 108. One possibility which should be explored is leasing a church parking lot during weekdays.

Sewer Service Areas

Densities proposed in the Magruder Valley will be served by existing community sewer and water systems. The major implementation issues regarding public sewer are:

- How should existing treatment capacity be allocated to implement land use proposals in this Plan. Should the present sewage treatment allocation system for Damascus be abandoned?
- What are the alternatives for providing additional sewage treatment capacity?

Although community sewerage facilities in the Damascus area are owned and operated by the WSSC, the Damascus system has its own sewage treatment plant which is completely separate from other WSSC sewerage facilities in Montgomery County. Most of the existing service area (see map, page 103) lies within the Magruder Valley between Routes 27 and 124. There are two pumping stations serving areas outside of the Magruder Valley, one for the Damascus Shopping Center and one for Spring Garden Estates (known as pump station "D"). The major interceptor follows Magruder Branch from its headwaters near Route 108 south through Damascus Regional Park to a pumping station located near Welsh Road. The sewage is then pumped a short distance to the sewage treatment plant which is located in the park.

The Damascus Sewage Treatment Plant was built in the early 1970's and upgraded in 1978 from secondary to advanced wastewater treatment. It has a design capacity of 750,000 gallons per day. The average monthly flow for 1980 was only 123,000 gallons per day.

TABLE 5

STAGING OF ROAD IMPROVEMENTS IN DAMASCUS

Item	Cost (1981 Dollars)	Effect	Implementation
1. a. Complete westbound lane on north side of Main Street	\$ 60,000	Critical lane volume reduced at Main St. and Ridge Rd. from 1476 to 1110.	State Highway Administration "Special Projects" program.
b. Eastbound lane on south side of Main St. approaching Ridge Road	\$ 50,000	(Level of service E to B)	
	\$ 110,000 total		
2. a. Construct Ridge-Lewis connector	\$ 150,000	Critical lane volume reduced at Main and Ridge from 1110 to 927.	Montgomery County or State Highway Administration.
b. Complete paving and re-stripe Ridge Rd. from Main St. north to connector	\$ 40,000	(Level of Service B to A)	
	\$ 190,000 total		
3. Extend Woodfield Rd. north of Main St. to Ridge Rd.		Will divert 310 Westbound and 113 Eastbound vehicles per hour from Main St. and from Ridge Rd. north of Main St. to limit of extension. Note: As traffic on Woodfield Rd. and Rte. 108 grows, these figures will increase.	Montgomery County and private developers.
	\$1,300,000 total		
4. Widen Md. 27 north of A-12 to Claggettville (adds two lanes).	\$ 780,000	Would carry future increased traffic.	State Highway Administration.
5. Extend Bethesda Church Rd. to Woodfield Rd.		Would serve new development. Could divert maximum of 50 eastbound and 50 westbound vehicles from Main St. during the P.M. peak hour. Probably fewer diversions if items 1 and 2 have been completed.	Private developers.
	\$ 500,000		
6. Hold A-11-A right-of-way (M-27 on 1966 Plan) for future use in connection with the extension of Woodfield Road north of Main Street.		Could divert northbound through traffic from intersection of Main St. and Ridge Rd. to Woodfield Rd.	State Highway Administration.

Source: MCPB staff. Costs are estimates only.

Allocation Policy

Capacity in the Damascus Sewage Treatment Plant is allocated under a policy established by the County's FY 1978-1987 Comprehensive Water Supply and Sewerage Systems Plan. The Executive's proposed FYs 1981-1990 plan update has recommended the transfer of some commercial allocation to residential and the use of more recent unit flow factors. The allocations which would result from the policy as amended are given in Table 8.

This table shows that nearly all of the allocation for new residential development has been committed. This is significant, given the fact that actual flows at the treatment plant are only 16 percent of the design capacity. Even based on the current Planning Board high growth forecast, the existing treatment capacity should be adequate to support the population expected in the year 2000. The allocation policy does provide for the "recapture" of commitments in cases where units have not proceeded to construction within one year (the County is considering a change to 18 months). It appears that a number of commitments could be recaptured on this basis if a "waiting list" for sewer ever occurred.

Several recommendations of the Plan may increase the "waiting list" for sewer:

1. The Plan recommends 345 acres of the land that flows by gravity to Pump Station "D" be zoned for one house per 2 acres. Sewer service should be provided to encourage clustering away from Little Bennett Creek.
2. Two areas proposed as TDR receiving areas are recommended for a base density of one house per 2 acres. No public sewer is proposed at this base density. By participating in the TDR program, developers would be eligible for a density increase to 2 houses per acre (half-acre lots) and public sewer.
3. Approximately 213 acres south of Damascus Regional Park are proposed as a TDR receiving area. The base density proposed is one house per 2 acres without public water or public sewer. To encourage the transfer of development rights, a TDR density of 1 house per 1 acre with public water is proposed. Sewer service is not recommended.

Estimates are shown in Table 9 of the amount of treatment capacity needed for each proposal.

This Plan proposes that development in the vicinity of Pump Station "D" and the two proposed TDR receiving areas be eligible for public sewer in accord with County allocation and recapture policies. Sewer service for the Business Area Expansion east of Damascus Shopping Center should only be programmed if this site is selected as the preferred location for a new shopping center.

Whether this present allocation policy should be retained or abandoned will be explored with County staff as part of Plan Implementation.

TABLE 8
DAMASCUS SERVICE AREA ALLOCATION SUMMARY

Category	Sub-Total	Flow (gpd)*	Total
1a. Health Problem Areas Due to Failing Septic Systems			21,000
1b. Potential Future Health Problem Areas			66,850
2. Public Facilities			
Public Schools			
(a) Damascus Elementary	4,428		
(b) Baker Junior High	4,088		
(c) Damascus High	7,920		
(d) Woodfield	2,064		
Library Facilities	500		
Fire Facilities	500		
Subtotal			19,500
3a. Existing Commercial Area	33,300		33,300
3b. Future Commercial			
Currently Allocated**	3,272		
Currently Unallocated**	26,128		
Subtotal			29,400
4. Residential Development			
Currently Allocated (including existing hookups)**	553,370		
Currently Unallocated**	26,580		
Subtotal			<u>579,950</u>
TOTAL			<u>750,000</u>

* gpd = gallons per day

** As of September 9, 1981

Source: Proposed FY's 1981-1990 Comprehensive Water Supply and Sewerage Systems Plan; Washington Suburban Sanitary Commission.

TABLE 9
PROPOSED ADDITIONS TO
EXISTING SEWER SERVICE AREA

Area	Acres	Potential No. of Houses	Estimated Daily Sewage Flows (Houses x 350 Gals.)	Comments
Pump Station "D"	283	At 1 per 2 acres: 141 plus 97 potential homes on existing lots. 141 + 97 = 238	83,300	With minor modification, Pump Station "D" appears adequate to accom- modate these sewage flows.
Ridge Road TDR Receiving Area A	91	At 2 per acre (TDR density): 182 At 1 per 2 acres (without TDR): 45	63,700 15,750	
Woodfield Road TDR Receiving Area B	126	At 2 per acre (TDR density): 252 At 1 per 2 acres (without TDR): 63	88,200 22,050	

Providing Additional Treatment Capacity

The possibility of obtaining additional sewage treatment capacity is uncertain at this time. Any expansion of the existing treatment plant is dependent upon the assimilative capacity of Magruder Branch and would be expensive due to the level of treatment required. Other alternatives include land treatment or small, package treatment plants. Eventually, it is anticipated that an interceptor will be extended up the Little Seneca Creek from the main WSSC system serving the developed areas of Montgomery County. It would then be possible to pump Damascus flows over to this line and phase out the Damascus treatment plant if desired. This extension is not expected to occur, however, until Clarksburg develops, which is not forecast for another 15 or 20 years.

The issue of additional treatment capacity will be addressed in a WSSC Damascus sewerage facility plan which has been included in the County's proposed FYs 1982-1987 Capital Improvements Program. This facility plan will consider the sewerage needs of master plan land use alternatives. At this point, Planning Board staff question the need to pursue new treatment capacity solely for the purpose of providing additional commitments, considering that the existing treatment plant should be adequate to handle actual flows through the year 2000.

The Land Use Plan does recommend an area east of Damascus Shopping Center for a Planned Development at 5 units per acre. However, until additional sewer capacity is available, this land should remain RE-2C (one house per 2 acres) without sewer service.

Planned Facilities

The only new sewerage facilities planned for the Damascus area at this time are an expansion of the pumping station serving the shopping center (Project S-94.03) and the installation of individual grinder pump systems on Locust Drive and Lewis Drive. The shopping center pumping station (known as B⁰) is being upgraded to serve the health problems in the nearby Beall Avenue area. It will serve 57 existing and 12 future residences, plus the existing shopping center.

The grinder pumps will be installed at 25 houses on Lewis Drive and 11 houses on Locust Drive. Sewage from each house will be ground up and pumped through a small diameter plastic pipe to the ridge line where it will connect to the existing sewerage system. A conventional pump station had previously been planned for this area but it was determined that the grinder pumps would be a more cost-effective approach for serving this health problem area.

RY COUNTY MASTER PLAN
r 1981
219)

TABLE 15
PROPOSED WATER PROJECTS

Project Name	Estimated Remaining Project Cost (\$000)	Project Description
Colesville Water Line	468	4,100 feet of 30 inch water main southeast of Good Hope Road.
Potomac Supply to Prince George's County	2,676	12,450 feet of 120 inch water main.

much of eastern Montgomery County has existing sewer service. poses that nearly all of the planning area be served within the ten he following areas:

River watershed;
n of Greencastle Road and east of Route 29; and
n of Norwood Road and west of New Hampshire Avenue.

cluded two proposed relief sewers and one new major sewer in the projects are shown on Figure 8, and described in Table 16. The sewer was developed on the basis of earlier population forecasts. the region have grown as fast as expected and indications are that be slower than previously projected. The Sewer Evaluation System er model which evaluates sewer system capabilities, indicates apacity for the Northwest Branch sewer until the year 2000. The -91.02, Northwest Branch Sewer Facility Plan, to examine future and determine whether construction of the project is necessary.

relief project is the Paint Branch relief sewer. The Maryland Resources has delayed this project until the Eastern Montgomery completed. A portion of this relief sewer has been placed on the in the CIP. This means that it will not be built until there is the project is needed. Construction of a sewer line in Paint the trout fishery. The CIP contains funds for Project S-33.05, Facility Plan, to analyze replacement sewer, relief sewer, or . The Project also will address environmental effects of line in Paint Branch.

The proposed new University of Maryland Plant Research Farm interceptor, Project S-33.02, will be built to serve the major employment center to be constructed on that 330-acre site.

Figure 49 illustrates the priorities of this master plan for the future provision of water and sewer service. In general, the priorities shown on Figure 49 correspond with the water and sewer service categories in the Ten-Year Plan. Priority one would be equivalent to categories W-3, W-4, S-3, and S-4; priority two to W-5 and S-5; and priority three to W-6 and S-6 (no planned service). The timing, however, will depend upon future highway improvements discussed below in the Transportation section. In areas with little remaining highway capacity, changes to the existing sewer service categories generally will not be approved until additional highways are programmed in the CIP. The link between sewers and roads is intended to keep new development -- and its impact on public facilities -- in scale with the capacity of the facilities to serve the development. Once the highways are programmed, water and sewer service can be provided in accord with the priorities shown on Figure 49.

TABLE 16
PROPOSED SEWER PROJECTS

Project Number	Project Name	Estimated Remaining Project Cost (\$000)	Length and Diameter of Lines	Capacity mgd*
S-33.02	University of Maryland Research Farm Sewer	216	2,000 ft. of 27 in. 4,200 ft. of 18 in. 2,100 ft. of 15 in.	5.6
S-33.03	Paint Branch Relief Sewer (dependent project)	--	1,720 ft. of 27 in. 7,100 ft. of 24 in. 2,855 ft. of 21 in.	17.8
S-33.05	Paint Branch Sewerage Facility Plan	75	--	--
S-91.02	Northwest Branch Sewer Facility Plan	--	--	--

* mgd = million gallons per day.

Source: Montgomery County FY 83-88 CIP.

The 1980 Comprehensive Staging Plan identified the Cloverly sub-area as one with very little remaining highway capacity. Water and sewer category change requests in this area in particular, therefore, will likely be denied, and service subsequently delayed, until the necessary highway improvements are made.

so may be used as an incentive to encourage use of transferable rights (TDR's). The area north of Greencastle Road, east of Route 29, shown on Figure 31, should be changed to sewer category S-3 (priority 1) in the event that development using TDR's is utilized. Such a category should be considered simultaneously with the consideration of the development

designated in an adopted master plan for automatic provision of sewer and water. An assembly of transferable development rights shall be automatically reclassified from category S-4, S-5, or S-6 to category S-3 upon approval by the Planning Board of subdivision. The subject development must have passed the Facilities test and secured at least the minimum number of TDR's required under the master plan designation.

ON

The Planning Policies report recommends a "Stage One" limitation in 1982 of 1,000 dwelling units and 6,692 net new employees in the Fairland/White Oak office sheds.⁶ Increases to these limitations would be contingent on improvements to Sandy Spring Road and Randolph Road east of Route 29 to 100 percent programmed for construction. Further development could be allowed at a later time if the transportation improvements recommended by this plan are programmed. Such improvements could include express bus service or dedicated exclusive or reserved lanes, as well as highway improvements consistent with this master plan.

To meet the anticipated pace of growth for the area, the road improvements recommended in this plan should be staged as follows:

I, to 1990:

- Route 29, Stewart Lane to Briggs Chaney Road: 6 lanes, divided.
- New Hampshire Avenue, East Randolph Road to the proposed Intercounty Connector: 6 lanes, divided. If the Intercounty Connector is built, otherwise, 4 lanes, divided.
- Bonifant Road, Northwest Branch to New Hampshire Avenue including relocation to connect to relocated Good Hope Road: 2 lanes.
- Briggs Chaney Road, Route 29 to Intercounty Connector: 4 lanes.
- Briggs Chaney Road, remainder: eliminate "dog-legs" at New Hampshire Avenue and Old Columbia Pike, spot safety improvement elsewhere.
- East Randolph Road relocated, Route 29 to Prince George's County Line: 4 lanes.
- Good Hope Road, New Hampshire Avenue to west of Blanton Road including relocation at New Hampshire Avenue: 2 lanes.
- Lockwood Drive, reconstruct intersection at New Hampshire Avenue.
- Randolph Road, reconstruct and resignalize intersection at New Hampshire Avenue.
- Sandy Spring Road, Route 29 to Prince George's County Line: 4 lanes divided.

⁶ 87, pp. 52-53, and for the Potomac watershed, staff estimates.

- Fringe Parking Lots, construct White Oak lot, including access road, acquire land for Colesville (if needed), Fairland Road, and Burtonsville lots.

Phase II, 1990-1995:

- Route 29, Briggs Chaney Road to Spencerville Road: 6 lanes, divided.
- New Hampshire Avenue, Intercounty Connector to Spencerville Road: 4 lanes.
- The Intercounty Connector, in whatever form it is ultimately approved, should be built in this phase.
- East Randolph Road, New Hampshire Avenue to Route 29: 4 lanes, divided.
- Fairland Road, Randolph Road to Route 29: 2 lanes.
- Lockwood Drive, Route 29 to New Hampshire Avenue: 4 lanes.
- Old Columbia Pike, Route 29 to Intercounty Connector: 2 lanes.
- Old Columbia Pike, Industrial Parkway to Stewart Lane: 2 lanes.
- Fringe Parking Lots, construct Colesville (if needed), Fairland Road, and Burtonsville lots.

Phase III, beyond 1995:

- Route 29, Spencerville Road to the Howard County Line: 6 lanes divided.
- Decision on the Route 29 relocation and interchange at Burtonsville should be made.
- New Hampshire Avenue, north of Spencerville Road: 2 lanes.
- Briggs Chaney Road, entire length (except portion rebuilt in Phase I): 2 lanes.
- Fairland Road, Route 29 to Prince George's County Line: 2 lanes.
- Old Columbia Pike, Intercounty Connector to Spencerville Road: 2 lanes.
- Spencerville Road, through Burtonsville business district: 6 lanes, divided.

GAITHERSBURG & VICINITY MASTER PLAN

Adopted January 1971

Amended July 1982 (General Staging Element not effected)

(Starting on Page 41)

IMPLEMENTATION

STAGING

New residential growth in the Gaithersburg vicinity has been triggered by the establishment of several large employment centers along Interstate I-70S during the last decade. Other recent growth is due to the improvement of commuter trips to employment centers in the down-County and other areas in the metropolitan region since the completion of I-70S.

Some of this growth has occurred contiguous to the older development in the center of the City. Until sewers were installed in recent years in the Seneca Creek Basin, most development was confined to the Rock Creek Basin, plus the several small areas served by pumping stations to the west and south of the old town. With sewers now installed in Whetstone Branch, Great Seneca Creek, and a portion of Long Draught Branch, other development can now locate some distance away, in what are still rural surroundings. Therefore, it is no longer reasonable to expect development to expand outward in concentric rings from the old town center; rather, the response of development will be to the addition of new employment centers, the construction of additional highways, and the relative pricing of new housing, as compared with the cost and convenience of commuting to job locations elsewhere.

Public policies and actions have been highly favorable toward the encouragement of development in the corridor cities. Because of the open character of the area, it is possible to acquire highway and utility rights-of-way and sites for public facilities, with relative ease and minimum costs as compared with the more developed sections of the County. The County's program for the Medical Center calls for increased amounts of private housing in that area. The decision to forego any expansion of the Airport assures nearby areas that heavy or jet aircraft will no longer be a threat to the environment in that vicinity and that additional amounts of low-density development will be possible. Clearly, the interest of balanced growth calls for continued public policy favoring continued development in this corridor city.

It is the general policy of the County to rezone for higher intensities only when adequate transportation and other public facilities are completed or are firmly scheduled for adequacy status by the time the proposed development on new zoning will occur. Particular care should be exercised to assure that the timing of high-density development in the area surrounding the proposed interchange of the Outer Beltway with I-70S is coordinated with the timing of construction of the Outer Beltway.

GERMANTOWN

Adopted January 1974

Amended September 1979

Non-staging Amendment December 1982

(Starting on Page 67)

STAGE ONE

This development stage can be rather precisely delineated. It pertains to existing dwellings and/or other structures which are expected to remain and to those areas which have outstanding authorizations for sewer. Those areas have a potential for 5,700 units (see Exhibit 20).

STAGE TWO

This stage will commence, regardless of the state of development in Stage One, when additional sewer treatment capacity becomes available.

The sewer service program, therefore, should be extended as recommended in this Amendment (see Section 4.53 and Exhibit 24). This will require amendment of the Comprehensive 10-Year Water and Sewerage Plan to permit a more detailed program of service extension to areas smaller than an entire drainage basin. Limited-access sewers will also be required in some areas to avoid opening more land to development than called for in the periodically revised development program for Germantown.

Based on expected rates of development this Master Plan Amendment recommends that the second stage of private development should permit a maximum of 11,500 additional dwelling units. This figure may be revised, based on development experience, market forecasts, and capital improvements scheduled by the time development begins in this stage. Assuming that Stages One and Two, together, will extend for about the first ten years of development, this will allow "room" for more than twice as much population as is predicted for Germantown in this period. This wide margin is recommended to allow for competition and in recognition that, for a variety of reasons, not all owners will be ready or able to develop within that time frame. Development in this stage can commence only when major additions to sewer treatment capacity are made. This area should be included in the comprehensive sectional map amendment enacted immediately following the adoption of this Comprehensive Amendment to the Master Plan for Germantown, however, to allow preliminary development approvals, such as applications for rezoning to the Planned Development Zone and for preliminary subdivision approval, to proceed.

The Stage Two development envelope should be extended to allow development to continue apace, primarily in the Churchill, Gunners Lake, and Middlebrook Villages. This land, as delineated on Exhibit 20, is currently held in 46 separate ownerships. All the areas in Stage Two are close to I-70-S and other existing improvements; are in proximity to the town center; and, importantly, are all located upstream from proposed storm-water management facilities indicated in the Seneca Creek Watershed Study or from facilities to be provided by the County or the developers, in accordance with the standards developed through the ongoing Countywide storm-water study. Also, these areas do not require major sewer trunk line extensions in excess of any required for the Montgomery College campus.

Programming for public facilities, therefore, should initially be concentrated in these three villages and in the sequence described in this Amendment. These facilities include the Germantown campus of Montgomery College, proposed for Middlebrook Village. Each neighborhood developed should be served by an elementary school.

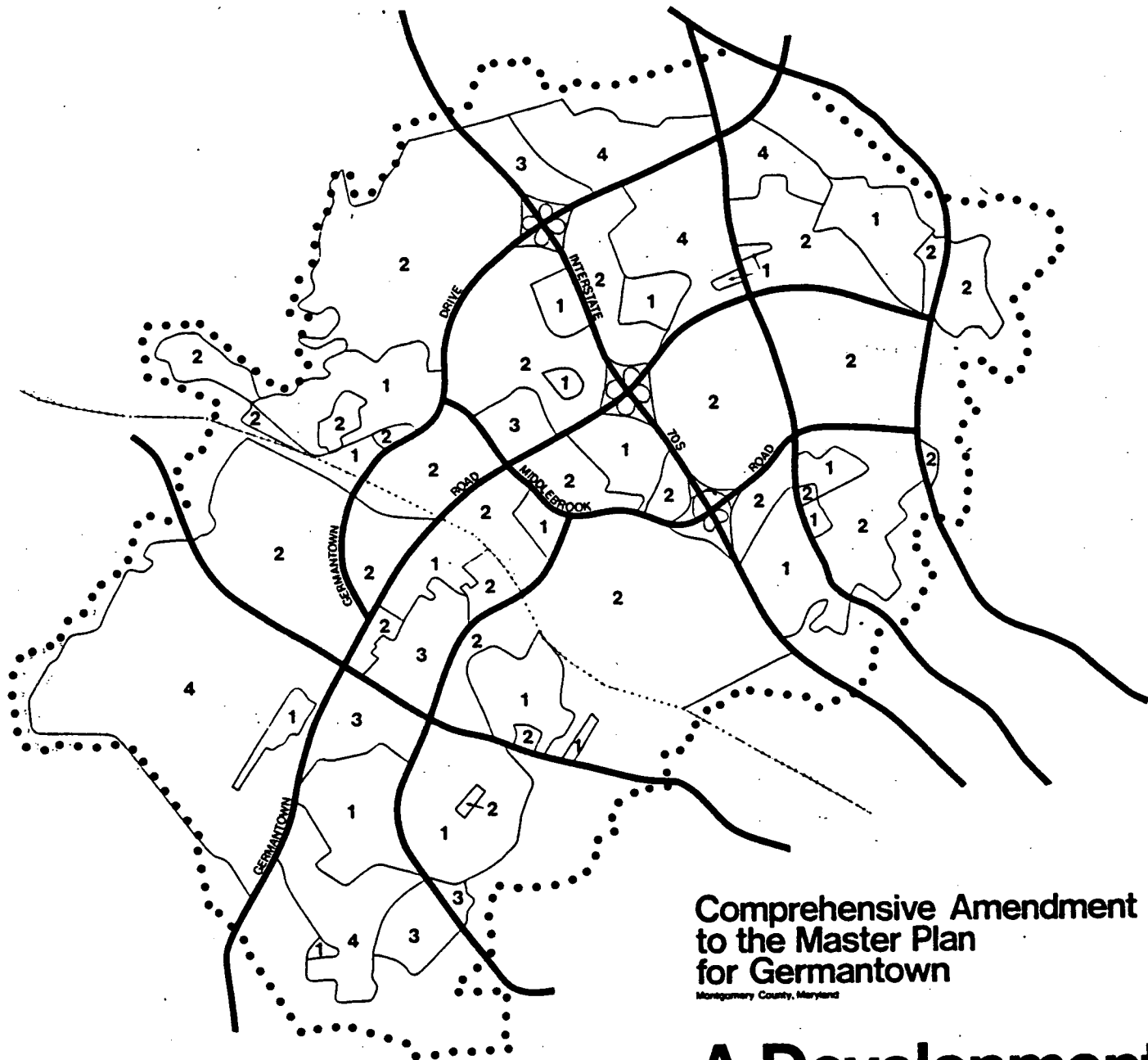
Every effort should be made to program public facilities at the earliest possible time. Sewer and transportation facilities should also be provided concurrently. This relates particularly to a quadrant formed by Maryland Route 355, the Eastern Arterial, Middlebrook Road extended, and M-61. This quadrant should be placed in Stage Two. It is the intention of the Master Plan that the timing of this quadrant be governed by the availability of adequate service from the Eastern Arterial and Maryland Route 355. Consequently, the point in time that this area should be scheduled for sewer service in the Comprehensive Ten-Year Water and Sewerage Plan should be adjusted so that development will be possible at the time transportation and sewer services are concurrently available. Thus, when the time for the construction of the Eastern Arterial has been determined or capacity is found to exist on Maryland Route 355, the Comprehensive Ten-Year Water and Sewerage Plan should be adjusted to provide sewer service at that time. Exhibit 24, a Proposed Amendment to the Ten-Year Sewerage Plan, depicts this area in the three-to-six-year period for sewer service, Category 11-B.

Similarly, the Staging Plan for the Germantown area must recognize the existence of an already approved subdivision in the Kingsview Village. This area, therefore, should also be designated for development in Stage Two; and the development should be contingent upon the application of adequate storm-water measures.

During Stage Two, construction for the village centers for Church Hill and Middlebrook should be commenced and, possibly, the village center for Gunners Lake as well. Additional land may be developed to support the construction activities in Germantown. Some initial development in the central business district could also be included in Stage Two, but only on the basis of a comprehensive development plan, indicating the full extent and schedule of development. Rezoning for the central business district should be effected in a manner that will assure the integrity of this core area and will avoid the development of premature, non-center uses that should appropriately be located in village centers or other sectors of less intense development (see Section 3.62). Highway-related commercial activities in the town center should commence in conformance with the guidelines set forth in Section 3.61. Industrial development in Germantown should be expected to expand during this stage to accommodate about 10,000 jobs. As this volume of employment occurs, the staggering of work hours may be necessary to ease peak-hour traffic at Maryland Route 118 and I-70-S.

The volume of private construction in this stage will require that the programming of roads keep pace with development. The second stage is predicated upon the construction of relocated Maryland Route 118 as a four-lane facility from Maryland Route 355 to Clopper Road, the widening of Maryland Route 355 to four lanes from Montgomery Village Avenue to relocated Maryland Route 118, the widening of Clopper Road to four lanes from relocated Maryland Route 118 south to Maryland Route 124, the widening of Middlebrook Road to four lanes from Maryland Route 355 to Maryland Route 118, the extension of Middlebrook Road from Maryland Route 355 to the Eastern Arterial, and the construction of the Eastern Arterial as a six-lane facility from Montgomery Village Avenue to Middlebrook Road extended. These projects should be placed in the Capital Improvements Program and/or the Maryland State Department of Transportation five-year construction program for development concurrently with the commencement of the second stage of private development.

"The Fifth Annual Growth Policy Report has identified that there are 5500 dwelling units with sewer allocations in the portion of Germantown west of I-270 and a remaining capacity in the road network for only 3000 more dwelling units. Thus no additional lots should be recorded in that area until the capacity of the highway network has been expanded. The County Council has accelerated the programming of the Western Arterial (M-90) called the Great Seneca Highway. This is a necessary improvement; however by itself, it is not sufficient. That portion of Maryland Route 118 between Middlebrook Road and Aircraft Drive must also be improved.



Comprehensive Amendment to the Master Plan for Germantown

Montgomery County, Maryland

A Development Sequence Plan

9/79

..... Planning Area
———— Major Proposed Roads

- ① Stage One
- ② Stage Two
- ③ Stage Three
- ④ Stage Four

"To facilitate the timely construction of this portion of Maryland Route 118 the Montgomery County Council may establish a Public Improvement District in that portion of Germantown west of I-270. The Public Improvement District will be responsible for the construction of that portion of Maryland Route 118. The financing for the construction would come from fees collected at the time of building permit approval. The fees would be on a per-unit basis for residential development and on a per square foot basis for retail and office development.

"If the County Council does not establish a Public Improvement District and if the highway improvements are not programmed by the State by the time private development wishes to move ahead then an alternative approach is proposed. In such a situation, all subdivisions in that part of Germantown which apply for recordation subsequent to the approval and adoption of this amendment must first enter into a public works agreement for the widening to four lanes of that portion of Maryland Route 118 from Middlebrook Road to Aircraft Drive and the improvement of those two intersections. This requirement shall be a condition of the approval of any preliminary plan or the extension of the approval of any preliminary plan made subsequent to the approval and adoption of this amendment.

"Upon recording, the owner and all successors and assigns will be bound, by public improvement agreement, to construct the improvements. The agreement shall be in accordance with the requirements of the State, County and/or Municipal agency, whichever is applicable and the agreement shall be recorded in the land records of Montgomery County. This agreement shall not constitute the programming of the road improvement. Therefore, any subdivision in the portion of Germantown west of I-270 is subject to the requirement of entering into such an agreement prior to recordation even if another developer has previously signed a similar agreement. The requirement to enter into such an agreement shall continue until the roadway improvements are completed by private funds or until 50% (fifty percent) of the construction funds for the improvements are contained in the 5-year State Secondary Highway Improvement Program or in the 6-year County Capital Improvements Program."

STAGE THREE

The third stage of Germantown development depends upon detailed study and decisions and will open the remaining sections of the first three villages to development. It will also open the sections of Clopper Village which can be properly served by public facilities.

The areas to be opened within Stage Three will be dependent upon specific major transportation facilities being programmed for construction and the programmed extension of sewer service areas. While zoning for Stage Three may occur fairly early, under the Adequate Public Facilities Ordinance, subdivision development cannot commence until major additions to provide traffic accessibility and sewer service have been programmed. Thus, subdivision approval cannot be granted for those areas in Stage Three until the improvements necessary for their support have been programmed. The timing for the programming of the necessary facilities should be reviewed as the time approaches to commence Stage Three and annually thereafter, in regard to the pace of development during Stages One and Two.

There are three major transportation facilities which relate to this phase: (1) the Eastern Arterial, (2) the Western Arterial, and (3) the additional interchanges on I-70-S (see Section 3.2). The areas encompassed in the sectional map amendment process recommended for Stage Three should relate to the transportation facility to be provided.

The aggregate potential number of new units in Stage Three is 4,700. The land in Stage Three is currently held in 42 separate ownerships.

Major development in the central business district, as well as the development of village centers in Gunners Lake Village if not already under way and in Clopper Village, is expected to take place during Stage Three. This stage can also be expected to produce major highway-oriented uses in the areas designated for them in the Land Use Plan.

Subject only to sewer service and storm-water management constraints, all remaining land indicated for industrial development on the Land Use Plan should be included in the sectional map amendment for Stage Three; and development should be authorized.

SUBSEQUENT STAGES

The subsequent stages of development depend primarily upon major sewer service extensions, in terms of trunk lines and pumping stations. They are also dependent upon the provision of additional storm-water management facilities. Comprehensive rezoning in the form of sectional map amendments will be undertaken, as necessary in response to the construction of such facilities. During these final "build-out" stages, 10,000 additional dwelling units will be developed, as well as the two additional village centers and completion of the town center and central business district.

NORTH BETHESDA SECTOR PLAN-GROSVENOR

Adopted May 1978

(Starting on Page 76)

STAGING

As discussed under Land Use Plan, two alternative land use plans are proposed, particularly affecting the areas adjacent to the METRO station. The alternatives are based upon the potential air-rights development over the METRO facilities. The staging of development at the station should also be based on retaining the option for air-rights development for at least several-years. If air rights are acquired on parcel 2, then Land Use Plan "A" will remain effective. If, however, air rights have not been conveyed within two years of the Grosvenor METRO station's becoming operational, then Land Use Plan "B" would be deemed effective. The Planning Board may, however, extend this time by an additional twelve months provided evidence is submitted that negotiations regarding air rights are about to be concluded.

The staging of development should be reflected in any rezoning application. The recommended Transit Station-Residential (TS-R) Zone requires a staging plan to be submitted with a rezoning application. It is recommended that the increment of development that would be permitted on parcels 3 and 4, if Land Use Plan "B" became operational, be indicated on the rezoning application as the final stage of development. That final stage of development would be authorized only upon a finding by the Planning Board that Alternative "B" is the operative plan. In this way, both the county and the applicant would not have to go through the rezoning process again if Land Use Plan "B" were operational, and yet the ultimate development scale of the parcels would be limited by disallowing the final stage if air-rights development becomes a reality.

Careful consideration should also be given at time of zoning to staging the development of properties to ensure that development is coincident with the provision of METRO and new proposed streets. This will ensure that new development can take full advantage of its proximity to METRO. Protection from over development can also be provided through the development review process at time of application for rezoning to either the Planned Development or Transit Station zones, wherein a finding of adequacy of public facilities must be made as a prerequisite for rezoning. This provision ensures that public facilities exist of sufficient capacity to accommodate the development proposed in the rezoning. Or it may provide for the staging of development to coincide with the provision of those public facilities.

NORTH BETHESDA SECTOR PLAN-NICHOLSON LANE

**Adopted May 1978
(Starting Page 127)**

STAGING

As previously discussed, two alternative land use plans are proposed for the transit station core, based upon the potential of air-rights development over the eastern METRO facilities. The staging of these two alternatives should be based on the operation of the Nicholson Lane METRO station. If air rights are acquired on the parcel designated as METRO East, then Development Alternative "A" is effective; if, however, air rights are not acquired within two years of the Nicholson Lane METRO station's becoming operational, then Development Alternative "B" would be deemed effective. The Planning Board may, however, extend this time by an additional twelve months, provided evidence is submitted that negotiations regarding air rights are about to be concluded.

This can be reflected in any rezoning application to the recommended TS-M Zone through a staging plan which is a required part of the rezoning submission. It is recommended that the increment of development, which would be permitted on the adjacent parcels if Development Alternative "B" becomes operative, be listed on the staging plan as the final stage of development. Of course, this would also require other qualifiers to be added to the rezoning, especially the implementation of Development Alternative "B". Thus, neither the applicant nor the county would have to go through the expense or time involved with the rezoning process again, the development can be controlled whether or not air rights are acquired.

Careful consideration should be given at time of zoning to staging the development of properties in the transit station zones to ensure that development is coincident with the provision of METRO and new proposed streets. This will ensure that new development does not overburden the public facilities in the area, and the new development can take full advantage of their proximity to METRO. Protection from over development can also be provided through the development review process at the time of application for rezoning, wherein a finding of adequacy of public facilities must be made as a requisite for rezoning. This provision ensures that public facilities of sufficient capacity will be available to accommodate the development proposed. It may also provide for the staging of development to coincide with the provision of those public facilities.

OLNEY MASTER PLAN
Adopted June 1980
(Starting on Page 125)

IMPLEMENTATION

This chapter describes policies and programs which should be taken to implement the Olney Master Plan.

STAGING RECOMMENDATIONS¹

The Fifth Annual Growth Policy Report of the Montgomery County Planning Board proposes a County-wide staging policy. The staging program for Olney consists of two stages:

STAGE ONE is keyed to the present carrying capacity of Georgia Avenue. Until widened, this major access road to Olney can only absorb traffic from another 1,700 homes.

STAGE TWO will begin when Georgia Avenue is programmed for widening to 4 lanes from Norbeck Road to Maryland Route 108 (the project is in the final design stage). This improvement will accommodate all future growth projected for Olney (5,000 dwellings).

The Olney Master Plan supports these staging policies as follows:

The first stage of development in Greater Olney will be limited to the capacity of Georgia Avenue. Stage Two development will commence when improvements from Norbeck Road to Route 108 are placed in the State Highway program for construction.

All subdivisions in the Georgia Avenue corridor south of Brookeville will be counted toward the capacity of Georgia Avenue. However, development in the rural area north of Brookeville will not be affected by the limited capacity of Georgia Avenue because densities are too low and the traffic distribution pattern too scattered to significantly affect highway traffic volumes.

Once the widening of Georgia Avenue is funded by the State Highway Administration's Five Year Construction Program, additional growth can occur since the Planning Board, in administering the Adequate Public Facilities Ordinance, must recognize the capacity of projects slated for construction within a six-year period.

This Plan supports the recommendations of the Fifth Annual Growth Policy Report that the APF ordinance be amended to require that a project be at least 50 percent funded in order to be considered an adequate facility. This requirement would allow better coordination of private growth and public facilities.

¹ These recommendations are consistent with the Planning Board's 5th Annual Growth Policy Report.

Two major public facility systems—Sewerage and Transportation—will determine the staging of development in the northeast quadrant of the Town Center.

To facilitate development in the Town Center, it will be necessary to amend the Comprehensive Water Supply and Sewerage Systems Plan map. A portion of the northeast quadrant is presently in Category S-5 which means services are not planned for 7 to 10 years. The Olney Master Plan recommends that sewer services be provided as soon as market demand exists for proper development and utilization.

Over the entire development, the timing of major transportation system improvements is crucial. Georgia Avenue must be widened and Prince Philip Drive completed to Georgia Avenue before development of the Town Center can be fully realized. The final segment of Prince Philip Drive will be a costly road partly because of a ravine which must be spanned near Georgia Avenue. To assure timely completion of the road, which is needed to service TDR receiving zones as well as the Town Center, County participation in the construction process may be necessary.

As the Town Center and receiving zones near completion, the level of service along Route 108 and between Dr. Bird Road and Bowie Mill Road may decline. Traffic levels along Route 108 will be monitored and the necessary right-of-ways for the road will be dedicated at time of subdivision to help assure timely completion of improvements when and if they are needed.

A summary of the Plan's staging recommendations is contained in Table 15.

TABLE 15
OLNEY MASTER PLAN
STAGING RECOMMENDATIONS

STAGE ONE		STAGE TWO
Proposed Growth	1,700 homes	3,300 homes
Key Land Use Use Policies	<ul style="list-style-type: none"> - Encourage residential infill in existing sewer envelope. - Begin construction of Town Center. - Implement TDR Program. 	<ul style="list-style-type: none"> - Continue implementation of TDR Program and Town Center concept.
Key Community Facilities	<ul style="list-style-type: none"> - Completion of Georgia Avenue/Route 108 intersection. - Completion of Georgia Avenue/Norbeck Road intersection. - Completion of Briars and Queen Elizabeth Roads. - Construction of Olney library. - Expansion of Longwood Recreation Center. - Construction of priority bikeway paths. 	<ul style="list-style-type: none"> - Georgia Avenue widened from Norbeck to Town Center. - Additional sewage pumping capacity in N.E. quadrant of Town Center. - Opening of Glenmont Metro line.

GEORGIA AVENUE WIDENING FUNDED

POTOMAC MASTER PLAN
Adopted May 1980
(Starting Page 143)

STAGING PROGRAM

The implementation and staging recommendations contained in the Plan are based on the following factors:

1. The major roads which serve the Subregion have limited transportation capacity at present.
2. Sewage treatment capacity to serve the Subregion is a primary limiting factor within the master plan period (0-10 years).
3. The only realistically available staging mechanisms are the provision of sewer service and the improvement of street capacity.
4. It is County policy to provide "moderately priced dwelling units" (MPDU's) in the Subregion, as well as in all other areas of the County which are zoned for half acre or more dense zoning. However, MPDU's are not required in areas which are not within the ten year water and sewer envelope.
5. Much of the area currently zoned RE-2 can be developed on septic and well systems at densities comparable to or only slightly reduced from the two acre zoning standard.

Based on the above, the Plan recommends that the highest priority for development be granted in those areas recommended for R-200 zoning. If the R-200 areas are inhibited from development because of a lack of sewer allocations, the areawide general transportation capacity that is currently available will eventually be used up by other development which would occur in the RE-2 (Residential Estate - 2 acre) zoned areas. Eventually, the following adverse conditions would result:

1. Few, if any, MPDU's will be constructed in the Subregion until sewer capacity becomes generally available and additional transportation capacity is provided. Since the deficiency of transportation capacity occurs primarily on State highways, such as River Road and Route 28, the implementation of County housing policy in the Potomac Subregion depends indirectly on the State's ability to finance new highway construction.
2. The number of vehicle miles of travel for all trip making purposes increases.
3. Continued dispersion of potential elementary and secondary students will increase the length of school bus trips.
4. Development of the two acre areas on septic systems can result in development patterns which are not ecologically sound or environmentally sensitive in terms of preserving unique natural features and open space.

By encouraging early development of the R-200 areas by making sewage treatment capacity available, the new growth will be better matched to the available transportation capacity. Later occurring, low-density sprawl-type development could then be retarded through the use of the adequate public facilities ordinance if improvements to road capacity are not made. Under the County's Adequate Public Facility Ordinance, when the available transportation capacity has been exhausted, additional subdivisions which can be shown to overtax the highway network, whether on sewer or septic, cannot be approved until additional highway capacity becomes available. First priority for sewer service (Category 1-3) should be given to areas within the R-200 zoning category.

The approximately 5,280 acres of undeveloped land in the R-200 classification could produce a maximum of 12,672 new dwelling units if allowed to develop and the density bonus for MPDU's is applied.

The second and third priority areas to receive sewer service, respectively, should be the Rock Run Drainage Basin and those two-acre areas between River Road and the Potomac River. The Plan recommends that these areas be placed in sewer and water service category five. This places these areas within the sewer envelope but at the end of the 7 to 10 year period.

The final stage for the expansion of the sewer envelope would be those two-acre areas which can logically and economically be served by extensions from, or which can tie in with the transmission system as extended during the previous stages. Since there are no programmed dates for the provision of additional treatment capacity, it is impossible at this time to recommend dates for the beginning of each stage. With the exception of the Stage I recommendations, which would begin immediately, the other two stages must be tied to the provision of sewage treatment capacity and highway capacity. Depending upon how additional capacity is provided some refinements of the staging elements may be desirable in future years, but within the general policies recommended above.

The Plan does not contemplate extension of sewer and/or water to all of the areas recommended for two acre (RE-2) zoning, particularly those two-acre areas immediately adjacent to the Rural Zone areas. If the transmission system extensions to serve a given area cannot be constructed economically, then that area should be allowed to develop on well and septic systems.

ROCK CREEK MASTER PLAN
Adopted October 1968
(Starting on Page 45)

Sanitary Sewers--Sanitary sewers, eventually, will be needed to serve the planning area. This will be absolutely necessary in all density-controlled development if the "cluster" regulations continue to require access to sanitary sewers as a prerequisite for this type of development.

A reasonable modification to the present controls would be to allow utilization of individual septic systems in cluster development as now permitted in connection with conventional subdivision design, as set forth in Section 104-16(c) of the existing Subdivision Ordinance. This would permit, in varying degree, some reduction in total lot size in the Agricultural Residential and Residential Estate Zones, while maintaining the overall density required.

This flexibility in the regulations would be particularly helpful to the developer building a small number of homes. It also would permit development to proceed under a modified form of density control prior to the advent of sewers.

Flexible regulations in respect to the use of septic tanks would not be applicable to cluster development in the Rural Residential Zone. Here, access to sanitary sewers would be required, because lot sizes may be reduced to 10,000 square feet in a cluster plan, and this size lot is not acceptable for septic tank use.

Public schools required to serve the community also will need sanitary sewers. Thus, it will be necessary to provide sanitary sewerage to serve the planning area. It is recommended that these be designated as controlled-access sewers in order to assure that development occurs in conformance with the plan.

SANDY SPRING/ASHTON SPECIAL STUDY AREA
Adopted November 1980
(Starting on Page 83)

Water and Sewer Service Recommendations

Proposed changes to the Montgomery County Comprehensive Water Supply and Sewerage Systems Plan are shown on the Proposed Water and Sewer Plan map.

The Plan:

1. Recommends providing public water and sewer service to portions of Sandy Spring and Ashton planned for commercial and medium-density residential uses.
2. Continues limited access sewer policies in the area between Ednor Road and Maryland Route 108.
3. Recommends the overall support of the following County rural sanitation policies for areas designated for low-density residential development:
 - Public water and sewer in rural areas should be discouraged except in cases where public health hazards have been clearly documented by the County.
 - Both sewer and water service should be provided simultaneously whenever possible.
4. Supports a small extension of public sewer and water to allow the clustering of homes away from historic structures along Meeting House Road. The overall density would be consistent with the Master Plan.
5. Endorses the County's Office of Environmental and Energy Planning (OEEP) efforts in developing a Rural Sanitation Plan which will provide a framework for the solution of rural sanitation problems. The OEEP has conducted a sanitary survey of Sandy Spring to document the existing health problems and cost-effective ways of dealing with the problems. Solutions could include new wells and/or septic systems, possible use of mound systems, an alternative system or some pumping facilities.

SHADY GROVE SECTOR PLAN

Adopted April 1977

(Starting on Page 134)

10.2 IMPLEMENTATION PROCEDURES AND STAGING

Staging of development in Shady Grove should take place during three time periods: short range (next 2-3 years), middle range (3-8 years), and long range (beyond 8 years). In the short range time frame the staging of public facilities is tied to the opening of the Metro station. Capital improvements are required to provide access and sewerage service to Metro. In the middle range time frame, private development is tied to the construction of Crabb's Branch sewer and the provision of sewerage for this subwatershed.

Although sewerage service will be provided during the middle range time frame the entire sector plan area should not be developed during this period. The King farm, the large expanse of property proposed for Industrial Park (I-3) zoning (planning analysis area 28, see Figure 28), should not develop until sufficient transportation facilities are in place. Thus, during the short and middle range time frames the King farm is proposed to be kept in the present R-200, residential zone. When the transportation facilities outlined below are in place, rezoning to I-3 would be appropriate if all other appropriate planning criteria are met.

The staging mechanisms available to the County, i.e., the Capital Improvement Program, sewer service categories, and sectional map amendment, should be modified to implement the staging recommendations of this Plan.

SILVER SPRING SECTOR PLAN
Adopted July 1975
(Starting on Page 105)

STAGING

In order to maximize the METRO Orientation and focus of the Central Business District, this Plan proposes that, to the extent possible, new development be encouraged to center first upon the METRO station--particularly and relatively undeveloped parcels east of the B & O R.R. tracks. This suggests that impetus be given to undertake new development on parcels close to the METRO facilities on Second and Wayne Avenues, and on Bonifant Street. Similarly, early development in the area between Cameron Street and Colesville Road should also be encouraged. In addition to parcels on the east side, the Loving tract could be permitted to develop during this first or interim stage.

Accordingly, this plan proposes that any interim sewer capacity available for Silver Spring recognize that these areas should receive first priority for service.

Secondarily, in response to proposed public investment in a first pedestrian way link between the METRO station and the east side of Georgia Avenue, development of the Civic Center area should be undertaken.

New construction in other areas is not meant to be precluded by this orientation; however, proposed development projects in other parts of the Sector Plan area should be looked at carefully in terms of their relation to both public improvements and to the development of the central core, which must have first priority to give Silver Spring an attractive and viable future.

After construction of the Advanced Wastewater Treatment Plant, making sewer service generally available throughout the County, a second stage for development in Silver Spring will begin.

The Falkland tracts, due to their size and the importance of an integrated development plan and schedule for them, should not develop until this second stage is reached, but, in any event, not before 1980.

SILVER SPRING EAST MASTER PLAN

Adopted March 1977

(Starting on Page 76)

Water Quality/Sewerage System

...

While water quality of the Anacostia River tributaries is generally considered good, above-average, mean bacteriological densities and evidence of fecal coliform pollution have been registered in all three streams at various times. The condition of some parts of the gravity sewer systems, which are old and have experienced leakage, are believed to have polluted the area's natural waterways. Periodic surcharging (overflow) occurs due to leakage of storm water into the sewer system during heavy storms. The completion of scheduled relief sewer projects should improve overall water quality. The projects at Long Branch and Northwest Branch are nearly complete and the Sligo Relief and Silver Spring Avenue Replacement Sewer projects will be constructed during 1977 and 1978.

In an attempt to continue to upgrade water quality, the following actions are recommended:

- Sources of stream pollution within the area and corrective action to improve water quality should be accurately determined by the DEP and WSSC; and
- Reports of the water quality of stream valleys should be published periodically.

To improve the conditions relating to sewerage systems, the following actions are recommended:

- Planning and construction of sewers should be sufficiently long range and coordinated with appropriate agencies, so as to minimize disruption to parkland and adjacent private uses; and
- The M-NCPPC and WSSC should continue to notify all adjoining and interested citizen's associations of sewer replacement or expansion, or any other utility work that may have a community impact.

TAKOMA PARK SECTOR PLAN

Adopted 1974

(Starting Page 58)

Stage II - 1979-1984

End of Sewer Moratorium

- Lifting of the sewer moratorium in the Anacostia Drainage Basin should allow new development to occur in Montgomery County.

Potential Development

- Mixed-use development should occur in the Carroll Avenue-Laurel Avenue shopping area, including provision of such desirable features as a variety of retail uses on street frontage, an open space relationship to the urban park at Westmoreland Avenue, and a pedestrian corridor past the Seventh Day Adventist Church to the Metro Station.
- Development may occur in the portion of the District of Columbia along Carroll Avenue and adjacent to Cedar Street.

Adequacy of Buffers

- Buffers between residential areas and the Metro station site or business areas should be evaluated; and improvements should be made, if necessary.

Neighborhood Maintenance

- Progress of neighborhood maintenance in the low-density residential area south and west of Tulip Avenue and in the other residential areas within the Metro station impact area should be assessed.

Stage III - 1984-1994

Potential Development

- Given that the necessary land assemblage occurs, and that such development is still compatible to the area, the redevelopment indicated as suitable for townhouses may possibly take place.
- Remaining land in the shopping area should now develop, preferably in a mixture of uses (under TS-M zoning)--particularly the land on the north side of Carroll Avenue in the Montgomery County portion of the Takoma Park business district.

MONTGOMERY COUNTY PLANNING BOARD

COMMISSIONERS

Norman Christeller/Chairman
Mable Granke/Vice Chair
Judith B. Heimann
Betty Ann Krahnke
Richmond M. Keeney

CONTRIBUTING STAFF

Richard E. Tustian Planning Director
Drew Dedrick Chief of Research Division

Erin Bombick
Betty Dimatteo
Mary Goodman
Bob Hnat
Bernard Horn
Ki Ho Kim
Craig Leiner
Bud Liem
Linda Miller
Fred Peacock

Michael Replogle
Walter Robinson
Les Scattergood
Marie Steingrebe
Florence Taylor
Liem Tran
George Vaugh
Patricia Willard
Robert Winick
Jeff Zyontz*

* Planner-in-charge

